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The connection between sustainable tourism and e-marketing.

Is digital marketing the tool to promote more sustainable practices in tourism?

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Abstract

Sustainability and marketing appear at first disconnected domains. However, this research aimed at connecting them by concentrating on both sustainable tourism and online marketing. It discussed how this combination can offer both economic and environmental advantages. On the one hand, since tourism accounts for one out of ten jobs worldwide as well as for ten per cent of GDP, and environmental issues need to be urgently addressed, this industry must become more sustainable. In addition, digitalization and online marketing play a great role in people's life as well as in business. Therefore, by looking at data, statistics, concrete examples, and experts' interviews, this work showed how digital marketing can be the tool which improves sustainability in tourism. Both sustainability and digitalization account for more competitiveness both in the tourism domain and in general for a country. By highlighting the positive aspects of digital marketing on sustainable tourism, it has been shown how the negative ones could represent an interesting point to analyze in further researches.

Nachhaltigkeit und Marketing erscheinen zunächst als unverbundene Gebieten. Diese Forschung zielte jedoch darauf ab, sie zu verbinden, indem sie sich sowohl auf nachhaltigen Tourismus als auch auf Online-Marketing konzentrierte. Es wurde diskutiert, wie diese Kombination sowohl wirtschaftliche als auch ökologische Vorteile bieten kann. Auf der einen Seite muss diese Industrie nachhaltiger werden, da der Tourismus weltweit einen von zehn Arbeitsplätzen und zehn Prozent des BIP ausmacht und Umweltfragen dringend angegangen werden müssen. Darüber hinaus spielen Digitalisierung und Online-Marketing sowohl im Leben der Menschen als auch in der Wirtschaft eine große Rolle. Daher hat diese Arbeit anhand von Daten, Statistiken, konkreten Beispielen und Experteninterviews gezeigt, wie digitales Marketing das Instrument sein kann, das die Nachhaltigkeit im Tourismus verbessert. Sowohl die Nachhaltigkeit als auch die Digitalisierung tragen zu mehr Wettbewerbsfähigkeit sowohl im Tourismusbereich als auch allgemein für ein Land bei. Durch die Hervorhebung der positiven Aspekte des digitalen Marketings für nachhaltigen Tourismus wurde gezeigt, wie die negativen Aspekte einen interessanten Punkt darstellen können, der in weiteren Untersuchungen analysiert werden kann. La durabilité et le marketing apparaissent d'abord comme des domaines déconnectés. Cependant, cette recherche visait à les relier en se concentrant à la fois sur le tourisme durable et le marketing en ligne. Elle a examiné comment cette combinaison peut offrir des avantages à la fois économiques et environnementaux. D'une part, étant donné que le tourisme représente un emploi sur dix dans le monde ainsi que dix pour cent du PIB, et que les questions environnementales doivent être traitées d'urgence, cette industrie doit devenir plus durable. D'autre part, la numérisation et le marketing en ligne jouent un grand rôle dans la vie des gens ainsi que dans les affaires. Par conséquent, en examinant des données, des statistiques, des exemples concrets et des interview des experts, ce travail a montré comment le marketing numérique peut être l'outil qui améliore la durabilité dans le tourisme. La durabilité et la numérisation sont toutes deux à l'origine d'une plus grande compétitivité dans le domaine du tourisme et en général pour un pays. En mettant en évidence les aspects positifs du marketing en ligne sur le tourisme durable, il a été montré comment les aspects négatifs pouvaient représenter un point intéressant à analyser dans le cadre de recherches ultérieures.

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List of abbreviations

DMO	Destination Management Organization
ETIS	European Tourism Indicator System
GSTC	Global Sustainable Tourism Council
GSTC	Global Sustainable Tourism Criteria
IPCC	Intergovernmental Panel on Climate Change
OM	Online, Digital or e-Marketing
SDGs	Sustainable Development Goals
ST	Sustainable Tourism
TTCI	Travel & Tourism Competitiveness Index
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNWTO	United Nations World Tourism Organization
WEF	World Economic Forum

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1. Introduction

1.1 Topic and scope

Earth Overshoot Day marks the date when humanity has exhausted nature's budget for the year. Due to the Covid-19 emergency it lands this year three weeks later than 2019, i.e. on 22nd of August (cf. Earth Overshoot Day 2020). During the pandemic, as a great part of the world was quarantined, one had the occasion to reflect on the human impact on the environment along with the use of limited, natural resources. Is it possible to improve the system without losing economic resources and negatively impacting some industries which strongly depend on high levels of mobility? Alone the travel and tourism industry accounts for ten per cent of the global GDP. Precisely this domain, from transports or airlines to accommodation businesses, was and currently is suffering from the negative impact of the health crisis. In the attempt to contain the economic damage to the industry, a lot of digital campaigns were launched during the quarantine aiming at promoting sites unreachable by international tourists.

Tourism and marketing represent the central topics of this work. The present situation shows how both play an essential role in our world. However, clear waters in Venice canals and blue skies over Chinese cities – events which occurred as traveling across the globe with the usual rhythm was stopped – made it clearer that changes and urgent measures are needed. Hence, it is essential to find suitable solutions to promote a more conscious and responsible use of the finite resources. Given the significance of the tourism sector and the urgency to foster more sustainable approaches, a powerful tool with great reach is needed to spread the word. Is resorting on digital marketing the solution to make tourism more sustainable?

1.2 Literature review

Sustainability, sustainable tourism along with marketing and online marketing are very discussed subjects. As a matter of fact, a lot of publications on the separate domains are available. For instance, several authors discuss the necessity of a sustainable approach in tourism (Krippendorf 1975; Rein and Strasdas 2017; Balas and Strasdas 2019). Furthermore, the increasing relevance of sustainability in the global debate is confirmed by numerous international organizations (UNWTO 1995; United Nations 2012; UNESCO 2015; UNWTO and UNDP 2017; UNWTO 2019b, 2020). On the side of marketing, both older and recent publications underline the importance of the domain in modern business by stating the centrality of the customer (Keith 1960; Kotler 2002, 2016). In the digital domain, several authors argue that the currently available instruments – the Internet, social media, Artificial

Intelligence or even Big Data – can be used both as communication means and tools to analyze, understand, and predict customers or travelers behavior (Borelli 2017; Geru et al. 2018; Marketing Space 2016). Even though several authors argue how marketing in general is an essential tool to promote tourism (Cristobal-Fransi et al. 2020; Martini and Buffa 2020; Kavoura et al. 2020), there is still a lack of research on the connection of sustainable tourism and e-marketing. Hence, a new angle on the topic, i.e. on the link between the two elements, is provided by this work.

1.3 Approach and structure

After naming the main references, it is useful to briefly illustrate both the methodology and the work's structure.

The main objective is to answer the question whether sustainable tourism and online marketing are more advantageous than the traditional forms and combinations, i.e. traditional tourism, and classic marketing. Since separating what is classic from the other versions is challenging, the present work aims also at clarifying the terms before passing to the analytical part. In fact, given that the research is rather theoretical, it is essential to evaluate the relevance of both by defining, illustrating the recent evolution, and their current role (see 2 and 3) before analyzing them in combination (see 4,5 and 6). In fact, Chapter 2 illustrates the topic of sustainable tourism: what is the meaning of sustainability especially focusing on the tourism domain? Can sustainable tourism be clearly opposed to classic tourism as well as measured? In discussing and exploring those sub-topics, the international debate and definition of sustainable tourism is enhanced. Chapter 3 concentrates on digital marketing aiming at evaluating this recent phenomenon. After defining and showing a brief evolution of the broad category of marketing, the digital version is considered. The focus is on the following questions: is digital marketing going to replace the classic form? How successful can it be in the tourism industry? After illustrating the definitions along with the context as well as the significance of both sustainable tourism and online marketing, the connection of those domains is examined in Chapter 4. A matrix presents four alternatives by analyzing them in combination and shows how the match of sustainable tourism and online marketing is the most innovative one. To support the hypothesis on a more practical base, Chapter 5 analyzes it through both a quantitative and qualitative approach. The role of competitiveness is central in this chapter: both sustainable tourism and digitalization can increase it significantly. However, since facts and statistics do not suffice to show the success of the hypothesis, Chapter 6 illustrate the concrete example of Switzerland, a very competitive and successful country in the sector of sustainability in general

and in the tourism domain. Some initiatives which show how digital marketing helped diffusing sustainable tourism are also discussed in detail.

Chapter 7 draws conclusions by showing the research's results and highlighting some limitations of the study. In addition, further possible developments are illustrated.

2. What is sustainable tourism?

This chapter deals with specifying what sustainable tourism is starting by the general category of sustainability passing through a brief historical development of the terms. Then, the opposition of traditional tourism to sustainable tourism as well as the question whether sustainable tourism can be measured are illustrated and discussed.

2.1 Sustainability and sustainable development: definition and brief history

Prior to defining sustainable tourism (ST), it is useful to briefly look at the concept of sustainability in general by first considering some definitions and second by looking at the milestones of sustainability as well as of sustainable development.

On the one side, the Oxford English Dictionary describes sustainability in three ways: first, "the quality of being sustainable by argument and the capacity to be upheld or defended as valid, correct, or true"; second, "the quality of being sustainable at a certain rate or level" and third, "the property of being environmentally sustainable and the degree to which a process or enterprise is able to be maintained or continued while avoiding the long-term depletion of natural resources" (cf. Oxford English Dictionary 2020b). On the other side, the Merriam-Webster gives both the general definition and the specific one but adds another aspect: "sustainable" means related to a lifestyle which involves the use of sustainable methods (cf. Merriam-Webster 2020b). So, both dictionaries show how the term refers on the one side to a general dimension which concerns the possibility of being maintained or defended. On the other side, the word relates to the environmental or social dimension, highlighting the factors of responsibility and conscious use of resources. The last angle is the one which is explored in a detailed way in the present work since the environmental as well as social point of view are closely linked to ST.

Strongly related to sustainability is the term sustainable development. Hence, it is useful to explore it by first defining it and then by connecting it to sustainability illustrating the presence of the terms in the international debate. On the one side, a milestone in the sustainability history is represented by the Stockholm conference in 1972, the United Nations' first major conference on international environmental issues, which represents a turning point in the development of international environmental politics. On the other side, the concept of sustainable development appeared for the first time in the Report of the Brundtland Commission in 1987 and started to gain importance in the global debate. The Report expressed that "humanity has the ability to

make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987, p. 16). This first definition of sustainable development underlines how it is essential to use the natural resources in a responsible way without hindering future generations. Sustainable development involves four dimensions, i.e. society, environment, culture, and economy, which need to be considered as linked. Since the Brundtland Report, international attention to sustainable development has increased. In fact, the United Nations met in 2015 to define new objectives in the so-called Agenda 2030 (cf. United Nations 2015). This is a plan of action for three core elements or the three Ps, i.e. people, planet, and prosperity which seeks the major goal of eradiating poverty (see also Figure 1). The Agenda also defines seventeen sustainable development goals (SDGs) highlighting several domains and giving equal weight to each of them, including the three main dimensions of sustainability, the economic, the environmental, and the social ones.

To underline how the Agenda 2030 as well as the SDGs are essential both on an international and on a national level, an example of how a country can embed them in their policy is briefly illustrated. As a matter of fact, the German Federal Government recognizes the importance of sustainable development in its Sustainable Development Strategy:

In order to make progress towards sustainable development, sustainability must be understood as a guiding principle – globally, nationally and locally. The goal is a world in which economic prosperity for all goes hand in hand with social cohesion and the protection of natural resources – a world which recognises a commitment to intergenerational equity, respect for human rights and the peaceful coexistence of peoples. Many modern problems are also due to the present being prioritised over the future. Living at the future's expense not only builds up debt for oneself but also mortgages future generations. One thing is clear: both nationally and internationally, a good future can be achieved if only everyone works on it together (The Federal Government 2016, p. 17).

Since sustainability is not only a complex system of factors but also a concept in evolution, it is surely restrictive to explain it through a dictionary definition. So, as the Federal Government highlights, it is important to look at sustainability as a guiding principle composed of three interdependent dimensions, i.e. economy, society, and environment (Figure 1). Those elements recall the keywords of sustainability or profit, people, and planet as well as the fact that it is essential to observe them as a system which functions only when every dimension is considered. Since the three-pillar model is often mentioned in the sustainability literature and plays an important role in ST, e.g. being closely connected to the Agenda 2030 goals, it is useful to briefly explore each dimension. For the economic sphere (profit/prosperity), the Agenda is determined to ensure that everyone can enjoy prosperous and fulfilling lives. As

concerns the social (people) aspect, the UN is determined to end poverty and hunger to ensure the fulfilment of dignity and equality among human beings. As regards the environment (planet), the SDGs aim at protecting the Earth from degradation, managing natural resources sustainably as well as taking action on climate change (cf. United Nations 2015).

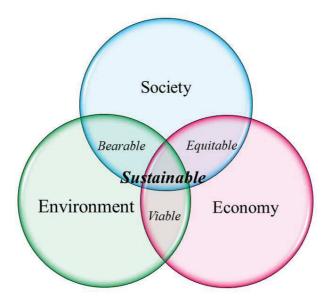


Figure 1: Triad model of sustainability (Pufé 2014, p. 121)

To sum up, it can be argued that both sustainability, as long-term goal, as well as sustainable development, as set of processes to achieve it, are key aspects which need to be considered (cf. UNESCO 2015). The international debate around those concepts started in the seventies and became more and more important as the Agenda 2030 and the SDGs demonstrate.

2.2 Sustainable tourism: definition and brief history

After underlining the importance of sustainability, it is useful to start exploring the present work's central facet of sustainability, i.e. sustainable tourism. Even though the definitions of such complex concept are multiple and evolving, it is important to have at least one which includes the most central aspects. The prevalent international definition is illustrated by the United Nations World Tourism Organization (UNWTO):

Sustainable tourism meets the needs of tourists and host regions while protecting and enhancing opportunities for the future. Resources are used in a way that fulfils economic, social and aesthetic needs while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems (UNWTO, 2005, cited in Strasdas 2011) (cf. Balas and Strasdas 2019, p. 19).

This definition incorporates economy, society, and environment as central elements. Profits are important for investments and return for the visited economy; people are essential both as

tourists and guests; our planet or the environment needs to be protected as natural resource. So, it can be seen how the three dimensions model (2.1) offers a good base also for sustainable tourism research (cf. Balas and Strasdas 2019, p. 19).

In defining ST similar difficulties appear as those encountered with the concept of sustainability. In fact, since the latter is a complex process, the same can be assumed for the former, i.e. sustainability and ST are to be intended as dynamic, complex, multi-facet matters. Belonging to the general category of sustainability, ST is also a long-term oriented process aiming at improving three connected dimensions, i.e. society, economy, and environment. Being applicable to various domains as well as being complex, those issues are not easily definable, which is why a single precise definition does not exist.

Since a more detailed context was provided for sustainability (2.1), it is useful to illustrate briefly the milestones which describe ST's history and confirm its importance in the international debate. After the Second World War tourism developed in a new industry since travelling was no longer a privilege of the upper classes. To offer more capacity as well as good services, several touristic areas started to be exploited at the expense of the surroundings. The phenomenon became more visible in the following decades so that the consequences started to be noticed. In fact, in the sixties the environmental movement started drawing attention to nature exploitation as well as to alternative forms of tourism. Significant contributions to the birth of environmental movements came from publications, which aimed at creating environmental awareness as well as at bringing more attention to the limited resources. To name a few, Rachel Carson's Silent Spring, published in 1962, and several books by Jost Krippendorf, published from 1975, can be considered as the texts which spread knowledge on environmental destruction caused by pesticides and by excessive tourism, respectively. Basing on scientific literature the biologist and science writer Rachel Carson explains to a nonacademic public how the unmoderated use of pesticides is destroying the environment in the United States (cf. Boslaugh 2020). Describing how pesticides impact every part of the ecosystem, from worms to human being passing through rivers and soil contaminations, Silent Spring urges measures to reduce the use of pesticides and calls for alternative methods. In the tourism domain, Jost Krippendorf, the father of sustainable tourism, wrote The Landscape Eaters in 1975. His work illustrates how disproportionate forms of tourism can destruct not only the natural environment but can also have a bad influence on the local economy. For instance, a relevant issue taking place especially in the Alps and on the European coasts is the phenomenon of second homes. In fact, although building houses and apartments for visitors

can be profitable for the local economy at first, in a second phase, those constructions become problematic. Since most people rarely occupy their second homes, a series of negative consequences follow (cf. Krippendorf 1975, pp. 37–45). First, this represent a loss for local hotels who could host the tourists possessing second homes. Second, the inhabitants would often have a house in their village but cannot afford it anymore due to the low offer and high prices. Third, precious space which could remain plain landscape is frequently used inefficiently, as it were unlimited. Hence, second homes bring more downsides to the touristic destinations both due to environmental and economic issues.

This brief excursus illustrates how both insightful publications and the environmental movement helped raising awareness about the natural world as well as bringing the concept of soft tourism to life. From the nineties, alternative tourism models started to evolve: pristine nature began to be recognized as a positive product quality, i.e. clean beaches, pure water, and unspoiled landscapes are what visitors want (cf. Rein and Strasdas 2017, p. 35). In the international debate, the nineties mark important milestones for ST. In fact, in 1992 in Rio de Janeiro during the United Nations Conference on Environment and Development (UNCED), the participating states acknowledged that consumption of non-renewable energies was leading to environmental degradation. That is why they adopted the Agenda 21, i.e. a plan involving action at international, national, regional, and local levels to control the human impacts on the environment. The UN also agreed in the Earth Summit on both the Rio Declaration and the Statement of principles for the Sustainable Management of Forest. An additional product of the UNCED is the Green Globe Program, the first international tourism sustainability certification program (cf. Green Globe 2020).

Another important date is 1995, the year of the World Conference on Sustainable Tourism which took place on the Canary Islands. In that occasion, the Lanzarote Charter was signed. The document underlines the importance of tourism as a phenomenon which needs to be improved from the environmental point of view. As a matter of fact, tourism "must be ecologically bearable in the long term, as well as economically viable, and ethically and socially equitable for local communities" (UNWTO 1995, p. 2). In 2012, two decades after the UNCED in Rio, the Sustainable Tourism Guidebook was prepared by the UNWTO. The document recognizes that tourism is an essential part of the world's economy. However, the negative impacts are still visible. Therefore, it is necessary to transform the industry in a more sustainable one:

We emphasize that well-designed and managed tourism can make a significant contribution to the three dimensions of sustainable development [...] We encourage the promotion of investment in sustainable tourism, including eco-tourism and cultural tourism, which may include creating small and medium sized enterprises and facilitating access to finance, including through microcredit initiatives for the poor, indigenous peoples and local communities in areas with high eco-tourism potential (cf. United Nations 2012, p. 25).

The Agenda 2030 mentioned in 2.1 is the most recent international agreement which confirms the interest to make tourism more sustainable. In fact, specific reference to the industry are to find in three of the seventeen SDGs, i.e. SDG 8 on "Decent Work and Economic Growth", SDG 12 on "Responsible Consumption and Production" and SDG 14 on "Life Below Water" (cf. UNWTO and UNDP 2017, pp. 16–17). The eighth goal highlights that tourism is one of the top four export earners globally and needs to favor better diversifications to enhance socio-economic impact of the industry. The twelfth objective underlines the importance of sustainable consumption as well as production pattern. For tourism, this corresponds to the improvement of both energy and resource management in favor of economic, social, and environmental outcomes. The fourteenth goal emphasizes that the oceans, seas, and marine resources need to be protected by the tourism industry. In fact, given that coastal and maritime tourism represent a relevant area of the industry, it is essential to protect and preserve marine ecosystems. The three SDGs indicate that the Agenda 2030 recognized the fundamental role of the tourism sector and urges to sustainable development of the industry (cf. UNWTO and UNDP 2017, p. 8).

2.3 Is sustainable tourism an opposition to traditional tourism?

After giving an overview of ST's milestones, it is useful to illustrate the dichotomy between ST and traditional tourism. First, it is appropriate to question whether the two concepts can be clearly separated and then look for answers in the recent evolution. Surely, the distinction in two different sectors serves on the one side for a better definition of ST. On the other side, though, such separations remain a simplification of a very complex phenomenon. As a matter of fact, it cannot be affirmed that tourism is either traditional or sustainable. There are traditional forms of tourism which are sustainable, such as hiking, as well as forms of tourism which are described as sustainable, but they are not. For instance, the term greenwashing identifies those forms of tourism which are masqueraded as sustainable to have more profits.

As for the previous sections, it is again helpful to resort to a brief history of the opposition between traditional and sustainable tourism. Gentle or soft tourism was originally perceived as an alternative to conventional holidays, part of a niche market (cf. Balas and Strasdas 2019, p. 16). Thanks to the environmental movements as well as to the increasing attention to nature in tourism (see also 2.1, 2.2), models opposing to mass tourism originated, e.g. eco-tourism as responsible tourism in the immediate nature which contributes to local economies (cf. Ties 1993 cited in Rein and Strasdas 2017, p. 115). In addition, the economic and social dimensions started to gain importance with the new millennium. In fact, the phenomenon of globalization encouraging to travel more increased the numbers of visitors worldwide as well as the impact of tourism. In this context, corporate social responsibility along with certification schemes (see also 2.2) started to become important so that enterprises could make the difference in a more sustainable transformation. In 2007 the reports of the Intergovernmental Panel on Climate Change (IPCC) promoted a "more critical view of the ecological and climate impacts of tourism, since it was evident that international tourism, especially air travel, played a role in climate change" (Balas and Strasdas 2019, p. 17).

It can be argued that if ST was born outside the main industry as niche market, it evolved to a general approach to tourism. This indicates a model involving the three dimensions of economy, society, and environment which aims at improving energy, resources, landscape utilization so that a real contribution to the hosting communities and destination can take place (cf. Kavoura et al. 2020, p. 561). Hence, since tourism should contribute to sustainable development at local, regional, national, and international level, it is important to observe ST as an approach, an integrative interpretation which involves the whole sector (cf. Ko 2005, p. 437; Balas and Strasdas 2019, p. 19).

2.4 Can sustainability be measured?

After clarifying the terms involved, i.e. sustainability and ST, it is relevant to briefly look at the measurability issue. So, the main question of this section is whether sustainability can be measured. Before discussing the matter, it is essential to underline how both sustainability and ST as complex phenomena present as such a great difficulty, i.e. they are not scientific matters which can be assessed through defined units and the respective instruments. Even though the observation may seem obvious, it is important to mention it. In fact, there is no "thermometer of sustainability" which can give a precise value of how sustainable something is. An attempt to solve this issue is linked to the use of indicators. As a matter of fact, those represent the effort of applying a scientific approach in a complex, hardly measurable subject. By definition, an indicator is "one that indicates: such as an instrument for automatically making a diagram that indicates the pressure in and volume of the working fluid of an engine throughout the cycle" or "any of a group of statistical values (such as level of employment) that taken together give an indication of the health of the economy" (Merriam-Webster 2020a). Hence, a way to

calculate or quantify something. Even though at first it may seem contradictory to use indicators as measurement of sustainability or ST, they are often used as a precious instrument of evaluation. In fact, it would be very challenging to evaluate, compare, and analyze the progress in sustainable issues without such methods. Another important employment of indicators takes place in the certification systems which make use of indicators as assessment instruments (see also 2.2). Sustainability indicators can fulfil several functions, e.g. for analysis – i.e. monitoring, controlling – or for comparison – i.e. among different towns or over a defined period of time (cf. Rein and Strasdas 2017, pp. 309–310). The use of indicators is therefore the method which allows a scientific approach to a subject which is hardly measurable and definable in contrast to natural sciences.

To put into practice a sustainability measurement system it is essential to have quality data as well as collect new data. For the destination level, the Destination Management Organization (DMO) plays an essential role. In fact, a DMO is an organization, which promotes a location as an attractive travel location. Even though its main tasks are typically linked to marketing activities as well as promotion, DMOs are also active in the strategic planning, coordination and management (cf. UNWTO 2020). Since a DMO's resources are limited to collect data, they can dispose of indicator models for ST which were developed on a global, European, and national level (cf. Rein and Strasdas 2017, p. 310). It is now useful to briefly illustrate two indicators models for the first two categories to give an idea of ST's measurement. From the global perspective, the Global Sustainable Tourism Criteria (GSTC), developed in 2008 on the initiative of UNWTO, UNEP and the Rainforest Alliance, serve as guidelines and minimum requirements to realize sustainability in tourism worldwide (cf. GSTC 2020c). The criteria are managed by the Global Sustainable Tourism Council, which provides both Destination Criteria for public policymakers and destination managers, and Industry Criteria for hotels and tour operators. Those principles "reflect certification standards, indicators, criteria, and best practices from different cultural and geo-political contexts around the world in tourism and other sectors where applicable" (GSTC 2020a). In January 2020, the Destination Criteria v2.0, a revision of the first version, was released. This includes both performance indicators and specific reference to the SDGs; in addition, the whole is categorized in four main sections, i.e. sustainable management, socio-economic, cultural, and environmental sustainability (cf. GSTC 2020b, p. 2).

On the European level, the European Tourism Indicator System (ETIS) was launched in 2013. While the GSTC Criteria are a set of guidelines applying to the global tourism industry, the ETIS consists of a measurement method as well as an instrument monitoring the sustainable development of EU destinations (cf. Rein and Strasdas 2017, p. 315). The system is inspired by the GSTC Criteria and based on twenty-seven core and forty optional indicators, subdivided into four categories, i.e. destination management, social and cultural impact, economic value, and environmental impact (cf. European Union 2016, p. 3). The ETIS is not only a voluntary management tool, which supports destinations taking more sustainable approaches, but also a monitoring system to assess the destination's performance as well as an information tool useful for policy makers and the involved stakeholders (cf. European Commission 2020). Even though the ETIS is helpful to analyze and monitor the progress of a destination's sustainability practices, it remains a set of guidelines which do not offer organizational criteria for the DMOs. In fact, the destination must develop its own strategy adapting the guidelines to its specific needs and context.

Since sustainability is an integral part of the tourism industry and also essential for its competitiveness (see also 5.1), both measuring and monitoring sustainability indicators helps to have an overview of the touristic impact on destinations. In fact, it is important to look at the different indicators or categories to have an accurate picture of tourism instead of relying on a limited range of statistics such as visitor-arrival numbers which do not offer a complete image of tourism impact (cf. European Union 2016, p. 10).

To sum up, it can be argued that indicators are a valid instrument to address the issue of measurability in sustainability matters. Moreover, they play an important role not only on the international dimension, which offer several helpful models such as the GSTC and the ETIS, but also on the regional or destination ones, which can dispose of the international systems to adapt their sustainability strategy.

3. Online marketing: the future of marketing?

The hypothesis of this research concentrates around the question whether sustainable tourism combined with digital marketing represents an innovative combination. Therefore, after dealing with the definition of ST, it is relevant to pass to the other key component of this work, i.e. online marketing.

3.1 Marketing: definition and periodization

Before looking at online marketing, it is useful to define marketing in general. The Oxford English Dictionary highlights three meanings of the term. First, as "the action of buying or selling, especially in a market"; second, as "the action or business of bringing or sending a product or commodity to market; the action, business, or process of promoting and selling a product, including market research, advertising, and distribution"; and third, "the department within a commercial organization which deals with marketing" (Oxford English Dictionary 2020a). While the first sense describes a general meaning of the term and the third underlines a business domain, the second definition brings the attention to the economic side which is interesting for this research. Hence, to have a more accurate idea of the definition. Marketing is "the management process through which goods and services move from concept to the customer. It includes the coordination of four elements called the 4 P's of marketing: identification, selection and development of a product, determination of its price, selection of a distribution channel to reach the customer's place, and development and implementation of a promotional strategy" (Business Dictionary 2020).

Given the vastness of the subject, it is challenging to give a detailed summary or history of marketing. So, for the purposes of this research, the description is confined to a very brief overview of the recent evolution, focusing especially on different periodizations which identify the origin and purposes of marketing practices.

An important date is 1960, when Robert Keith published *The Marketing Revolution*, a relevant work in the study of marketing history. As the title anticipates, the author describes how marketing is undergoing a revolution, i.e. how "the consumer, not the company, is in the middle" (Keith 1960, p. 35). Comparing it to the Galilean revolution in the sixteenth century, Keith describes the shift of attention from the company to the customer as it was for the geocentrism to the heliocentrism. Basing on the evolution of Pillsbury, a food processing industry company where Keith was Vice President, he identifies three eras which lead to the

marketing revolution (cf. Keith 1960, pp. 36–38). The first era is dated from the second half of the nineteenth century to the thirties and is characterized by manufacturing. This period is the one where production is the central activity, i.e. the company starts producing and gaining importance in the market. The sales-oriented era follows with the focus on selling as well as creating a stable distribution network through salesmen. The third period, i.e. the marketing oriented one, starts in the fifties. In fact, the company both introduces new products into the market and analyses the customers' needs basing on market research. This is the shift of attention to the consumer, which becomes a key factor in the company's strategy. To cope with the new challenges, Pillsbury transforms the small advertising department into a marketing department, changing "from a company which has the marketing concept to a marketing company" (Keith 1960, p. 38). The author concludes the article by illustrating how the marketing revolution has only begun and underlining that the role of the consumer will gain more importance. In fact, not only the marketing domain will be affected, but also any other department aiming at satisfying the customer's needs and desires under every aspect. Even though this work represents an interesting division in eras and highlights the importance of the customer centrality, it can be criticized for being non-scientific. As a matter of fact, the article does not make use of references to support the historical division. However, since the division is based on Pillsbury's story and does not have the pretense to be a universal periodization, it can be considered as an interesting anecdotical contribution showing the central role of marketing in a company.

It is useful to resort to another manual periodization in six phases to have a more complete picture of the evolution of marketing's role in business (cf. Thommen et al. 2017, pp. 54–55). The first phase takes place at the beginning of the twentieth century in the United States and after the Second World War in Europe. In this period, the focus is on production, i.e. on the seller's market, which means that all what is produced can be sold. In a second phase, the market becomes saturated because of the increasing specialization – such as the division of labor – and technical progress. The increasing competition and lower prices impede to sell all the products so the focus shifts to the sales domain. To do so and survive the competitors, selling is improved through some techniques such as lower prices or advertising. The third phase is market oriented, i.e. the production should be determined by the demand; here, marketing shifts from a single business function to a mindset that incorporate all other functions. Since the seventies, the environmental oriented phase takes place with its society-oriented mindset or Societal Marketing. In this period, in addition to customers' needs,

stakeholders as well as ecological and social aspects must be considered. In the eighties and nineties, with the changing social and economic conditions – e.g. the globalization of markets along with the increasing importance of service and new information and communication technologies – a new phase starts, i.e. the Customer Relationship Management. Customer retention and loyalty are central: every business process is aligned with the customer. With the beginning of the new millennium as well as the widespread use of the Internet, a new era starts, i.e. the phase of online marketing. The Internet affects all areas of marketing revealing a precious tool to improve selling and advertising. In this era, both Customer Relationship Management and customer data play a central role for online marketing.

Summing up, marketing can be defined as the set of techniques and processes which are necessary to successfully launch a product on the market, convince potential customers, and maintain them as clients. So, in the actual marketing situation, not only the customer plays a central role but both adopting and updating the available means of communication is also crucial to spread the message to a large public. In this context, the Internet reveals to be a highly effective tool for OM since it easily reaches a great number of people through different channels.

3.2 Online marketing

After giving a short overview of the recent marketing evolution, it is now relevant to examine the category of online marketing. Prior to discussing the importance of online marketing in tourism (3.4), it is useful to define the terms as well as illustrate the importance of the digital in the marketing domain.

As mentioned above, digital marketing started developing at the beginning of the twenty-first century thanks to new technological possibilities. So, generally speaking, online marketing includes all marketing measures based on internet technologies and online platforms (cf. Thommen et al. 2017, p. 57; Schulz 2015, p. 65). As underlined in 3.1, means of communication are essential to spread the advertising messages to a lot of recipients. In the case of digital marketing, the evolution of both technologies and media allowed to vary the channels basing on one single technology, i.e. the Internet.

Philip Kotler, who defines himself as one of the fathers of modern marketing, highlights the importance of the digital in the domain of marketing by illustrating two ways in which the old and the new marketing differ. Firstly, he underlines that the old form used to develop mass advertising as well as mass distribution to increase sales without giving a lot of product

information, retrieved by the buyers from ads or word-of-mouth (cf. Kotler 2016, pp. 2–3). On the contrary, today consumers dispose of a great deal of information which make them in full control of the buying process. However, not only the recipients profits from the available information, but also the companies which collect vast personal data and preferences about their customers thanks to the Internet-of-Things and to Artificial Intelligence (cf. Kotler 2016, p. 3). Secondly, new methods are used in the marketing world. If the old marketers used to know what consumers liked thanks to their conscious decisions along with their shared opinions, today buyers seem to be more influenced by "deeper frames of mind and metaphors they are less conscious of" (Kotler 2016, p. 4). Since unconscious factors play an important role in shaping purchase decisions, new techniques such as storytelling, are adopted to increase customers' motivation to buy (cf. Kotler 2016, p. 4).

It can be argued that the digital not only offers new communication possibilities but also modifies the domain in another way, i.e. in the so-called marketing mix. According to the 4Ps model highlighted in the business definition of marketing (3.1) four elements are central: it is essential to know the Product, which can be sold at a specific Price with the right Promotion in the right Place. Even though this is one of the most used and common marketing mixes, it was coined in the sixties, before customers acquired the role they have today. The increasing centrality of the customer is considered by another approach created in the nineties, i.e. the 4Cs mix, which stands for Customer, Cost, Convenience, and Communication (cf. Hodgson 2019). In this model, there is a general shift of attention: the consumer's existing problems need solutions. Therefore, it is important to know them prior to product or service development. The overall cost, i.e. not only the price but also any other additional factor, need to be considered. In the era of Internet, the place becomes less relevant and convenience, i.e. how easy it is to purchase from a specific business, is central. The one-way factor of promotion is replaced by communication, both with customers and stakeholders to offer a better product or service.

It can be argued that the digital era is transforming the marketing domain putting the detailed and personalized customers' profiles in the center by using the large amount of the available personal information. Hence, it is important to underline that the great potential of online marketing relies not only on the evolving technologies, but also on the precious personal data. Both factors lead to the possibility to conduct specific and personalized research on single customers. In this way, their desires can be predicted aiming at encouraging them to buy goods or services. Passing to the digital marketing communication options, it is relevant to name a few to have an overview of the offered means of diffusion. To attract interest as well as promote something, a company can use several possibilities such as websites, social media, mobile marketing, ads, online communities, blogs, and emails (cf. Živković et al., p. 759). To give a complete description of purpose, products, and vision of a company, it is not only effective to administrate a well-designed website, but also to recur to other means. For instance, digital advertisement can be used in several forms such as through pull or push ads (cf. Brown 2017). The former are e.g. search ads which are allowed by search engines like Google and usually positioned at the top of the search results. With this system the advertiser pays the network e.g. Google to display the ads and is charged only when a user clicks on them. The latter, i.e. push ads, are for instance display ads, which are the banners or texts on websites and can also appear in other formats, i.e. personal inboxes, or apps. More interactive options are blogs, online communities as well as social networks, where the users can contribute through comments, posting, reviews and offer precious informative material to companies. Another relevant instrument is email, e.g. the use of personalized newsletters to build customer loyalty (see also 4.2).

3.3 Can online marketing replace classic marketing?

This section aims at describing the difference between classic and digital forms of marketing and to address the question whether online marketing can function as the substitute of classic marketing. For this purpose, it is useful to discuss the differences by illustrating not only the channels used by each form but also the advantages and disadvantages.

Classic forms of marketing media include broadcasting, i.e. advertisements on television, radio or on-screen commercial in theatres; print media, such as newspapers, brochures, flyers, posters, and magazines. Other forms which contact the customer directly are for instance direct mail, e.g. letters, catalogs, and fliers. Another technique is telemarketing which aims at convincing targeted customers by calling them on the telephone.

There are three main advantages of traditional marketing (cf. Nayar 2018; Kapoor 2018). First, local audience can be targeted and reached easily. As a matter of fact, radio and local newspapers represent a good method to reach a specific area or city. Also, new audiences can be reached thanks to billboards, television, and radio. Second, print advertisement has the advantage that it can be both replied in large scale and saved as copy. Third, since classic marketing makes use of simple, quick, repeating messages, it is easy to understand by the

recipients. In addition, they are more familiar to older people who may struggle more with the digital versions. Even though the positive sides offer good possibilities to spread the messages and convince old and new consumers, the negative aspects are numerous. The high costs represent an important downside: both printing and broadcasting are expensive alternatives which not every company can afford. Moreover, traditional marketing lacks in flexibility in context customization or updating. In fact, printed messages consist of static text printed on media which do not offer the possibility to change or update the context in a short time. In addition, less information can be provided to the customer since either space or time is limited. Other disadvantages of such marketing forms are linked to the fact that they are mostly forced on the customers and can be therefore ignored or skipped to avoid the advertising.

Some relevant downsides of traditional marketing can be solved through digital marketing (cf. Nayar 2018; Kapoor 2018). In fact, online forms are cost effective and allow to measure the ROI e.g. by looking at the number of clicks or views. Another central advantage is the fact that a great number of people can be reached regardless of their geographic location through digital marketing along with the fact that new markets can be targeted and explored. The problem of modifying, adding, and updating content can also be solved by digital marketing: both changes can be made instantly, and more information can be offered. If traditional marketing imposes on the client, the digital version is less intrusive, more engaging, and interactive for the customers, who can choose the medium to consume, e.g. by reading blogs, watching videos, or signing up for newsletters. Another upside connects to the speed of the online world: it is possible to gain instant publicity by posting something e.g. on YouTube or social media. In addition, the phenomenon of virality needs to be considered: in fact, a well-made video or social media post can get shared by a lot of people and create great visibility. Even though the positive aspects are numerous and show how online marketing offers excellent possibilities, there are also some relevant downsides. On the one hand the rapidity of the digital world can be advantageous for visibility as well as virality, on the other hand, though, negative feedback spreads equally fast and can have a highly negative impact on the public. In addition, regulations by Search Engines can be an obstacle in a successful digital campaign as well as lack of expertise in the field. So, it is essential to employ the experts of the field who dispose of solid knowledge not only of the company but also of the current regulations.

After highlighting upsides and downsides of traditional and digital marketing, some observations emerge. First, remarkable positive aspects of OM can be noted, i.e. it is very effective since it reaches a great number of people, it is fast and inexpensive. Second, it is true

that not every customer can be approached by the online forms. In fact, older people tend to watch television, listen to the radio, or read the printed advertisement in newspapers, brochures, or direct mail. So, as answer to the question whether online marketing can replace offline or traditional marketing, it can be affirmed that a combination of both forms is the most effective one (cf. Schulz 2015, p. 82). As a matter of fact, even though the two marketing forms make use of different channels, they both serve the same purpose of persuading people to become customers. Hence, despite the fact that it may seem that digital marketing has the potential to replace the offline forms, it is more realistic that a combination of both options brings to success (cf. Schulz 2015, p. 82). In fact, the disadvantages of traditional marketing, such as higher cost or limited geographical reachability or even the imposition on the consumer, can be covered by online marketing forms. In the same way, the disadvantages of digital marketing for instance the difficulties in targeting population sectors who do not make often use of technological options can be integrated through classic marketing. If the offline forms push the future clients towards specific products or services, the online forms aim at gaining new customers (cf. Schulz 2015, p. 82).

3.4 Online marketing in the tourism industry

After illustrating both the marketing and the online marketing definitions and before exploring the combination with ST, it is appropriate to address the topic of digital marketing in the tourism industry. At first, its relevance in the tourism domain is described. Secondly, three examples of successful digital marketing strategies are illustrated.

As highlighted in 3.3, online marketing offers a series of positive aspects such as the amount of potential customers who can be easily reached. Like a lot of domains, the travel and tourism industry also profit from the widespread use of the Internet. On the one side, the providers in all tourism domains from accommodation to transports can make use of internet technologies to be present online as well as to facilitate the searching or booking process. On the other side, visitors can look for the details they need online, organize their trips independently, and contribute to the improvement through feedbacks and reviews (see also 4.1.2). Therefore, given that the number of people who organize their holiday using only the Internet is increasing (see also 4.1), marketers can use the digital to "put their messages at the fingertips of potential customers" (Wilson 2018). In addition, the significance of unconscious factors in marketing (3.2), increasing the use of techniques such as storytelling to involve more the users and convince them, is equally meaningful in tourism digital marketing. In fact, travelers desire to be in the story – the centrality of the customer mentioned above applies also to the tourism

domain – which means sharing content as well as being active users in the online world. In this context, the element of experience plays a central role: tourists do not only wish to visit new places or cultural monuments. On the contrary, the goal to enjoy something more linked to the destination e.g. getting to know local traditions is becoming more important.

Since examples contribute to a more complete description of phenomena, it is helpful to name a few in tourism digital marketing. A company which disrupted the travel and tourism industry by adopting an innovative digital strategy is Airbnb. As the two young CEOs, Brian Chesky and Joe Gebbia, were studying in San Francisco in 2008 and could not afford their apartment anymore, they started renting out air matrasses in their living room for people visiting the city. This evolved in a website named Airbedandbreakfast.com offering the same service on larger scale which became a company currently worth twenty-five billion dollars. Paying attention to wishes and worries of both guests and travelers, Airbnb does not only dispose of a simple website and an effective communication process between host and guest but also recommends activities or experiences. After the profile creation, future visitors can contact the hosts in the places they want to stay and organize the trip. The communication between the host and the guest as well as the review process are simple and user-friendly. As a matter of fact, a personal comment to the host can be optionally written and a public review as evaluation of the stay can be left on the host's page. Both the host and the guest have reviews to protect both parties involved and help in the choice. In addition, to protect hosts from damages guests may cause to the personal property, a strong insurance policy up to one million is granted by Airbnb. As underlined above, experience is an essential factor to consider to be successful in online marketing. The slogan of a successful campaign "Don't go there. Live there" shows how not only the staying or visiting, but also the experiencing is an integral part of travelling (cf. Nagamine 2017). For this purpose, Airbnb incorporates the technique of storytelling (see also 3.2) in the online strategy through Stories, Neighborhoods and Guidebooks. While Stories narrate testimonies about the impact of Airbnb on the online community, Neighborhoods describe the districts of big cities from the local point of view. However, the most useful and appreciated tool is Guidebooks. In fact, things to do in a city, e.g. restaurants, coffee shops, locals' favorite places are recommended by hosts to experience the place from a local perspective. In addition, user generated content is given a lot of importance granting a load of different, personal impressions which can be shared with other travelers through the strong social media presence of Airbnb. One last advantage of the platform worth to be briefly mentioned is linked to renting and promoting in areas which are either not so easy to reach or

less visited than close, very crowded locations. In fact, the absence of hotels and presence of small villages may be an occasion to offer an inexpensive stay to travelers. Moreover, the classic division of high and off-peak season does not affect the Airbnb hosts so strong like more visited places (see also 6.3.4).

Besides the successful Airbnb "Don't' go there. Live there" campaign or the Guidebooks tool, it is useful to briefly illustrate two other examples of good digital marketing in the travel and tourism industry. The first one is a security video, "The Most Epic Safety Video Ever Made", created by Air New Zealand in 2012 (cf. Barber 2014). Following the release of the last film of *The Hobbit* trilogy, filmed entirely in New Zealand, the clip presents actors and characters from the Tolkien universe along with stunning landscapes as background. The video aims both at informing and entertaining travelers as well as at providing good publicity for the beautiful island. The success can be confirmed by the thirteen million views on YouTube. The second one was launched by Tourism Australia in 2013. The campaign was a global competition to win six dream jobs in spectacular destinations targeting young travelers promoted both through online and offline marketing. This resulted "in significant publicity with more than 8,500 news articles worldwide generating over \$44 million worth of media coverage" (Tourism Australia 2013).

Those examples show how digital marketing can be very relevant to the travel and tourism industry by generating both good publicity and large profits. Since online marketing can be an asset to this sector's companies, it can also help in improving sustainable forms of tourism. So, not only technological possibilities such as the Internet or Artificial Intelligence can improve a company's or organization's online presence, but also other factors can be used to improve sustainability. As mentioned in the Airbnb example, experience is gaining greater significance: travelers as users of a service want to be part of something by living experiences. Here is where the link to ST appears. In fact, ST incorporates the dimensions of economy, environment, and society (2.2), which means that the visitors does not only contribute with the economic dimension, but also has interest in the environmental, cultural, and social dimensions. So, the digital can improve the connection not only to tourism but also to sustainable forms of tourism.

4. The link between sustainable tourism and online marketing

This chapter brings sustainable tourism and online marketing together. Although the two fields may seem not easily compatible, this chapter shows how they can be combined. In general, it can be argued that marketing is a key tool for sustainable tourism destinations. In fact, it is responsible for the number and type of visitors and, if well managed, marketing can contribute to the economic development and growth by paying attention to sustainability issues (Cristobal-Fransi et al. 2020, p. 1).

In the first section, a matrix presents and discusses the different possible combinations of the two fields. In the second and third part, sustainable tourism and online marketing are illustrated in theory as the innovative combination. The last section shows how the match can also be innovative on a practical level.

4.1 The matrix

The illustrated matrix (Figure 2) assumes that there are two general categories of tourism, i.e. classic and marketing tourism. The former is not included in the matrix because it is not relevant for the present research since it excludes any use of marketing activities. Therefore, the whole attention is given to the kind of tourism which employs marketing activities. It is equally important to mention that marketing is classified as weather classic marketing or online marketing. The difference lies in the medium through which the audience receives the marketing message: classic forms include printed media, television, radio ads and direct mail while the digital forms of marketing use the Internet (see also 3.3).

	Classic marketing	Online marketing
Traditional tourism	4.1.1	4.1.2
Sustainable tourism	4.1.3	4.1.4

Figure 2: Matrix

In the following subsections the four combination are examined and discussed in detail.

4.1.1 Traditional tourism and classic marketing

This match describes a traditional form of tourism combined with a traditional form of marketing. Chapter 2 dealt with the explanation of traditional tourism comparing it to the sustainable forms and brought up the difficulties of an unambiguous definition of sustainable tourism. At this point, it is useful to briefly report the definition of tourism by UNWTO:

Tourism is a social, cultural and economic phenomenon which entails the movement of people to countries or places outside their usual environment for personal or business/professional purposes. These people are called visitors (which may be either tourists or excursionists; residents or non-residents) and tourism has to do with their activities, some of which involve tourism expenditure (UNWTO 2019a).

By associating traditional tourism to classic marketing one can think of the most classical combination before the Internet era. The whole touristic segment – i.e. the visitors and the service providers – used to be closely linked to printed media and publications, radio and television both for the destination and information research on the side of the visitors and for the offer's transmission on the side of the touristic providers. It is equally important to mention how travel agencies used to dominate in the intermediation between travelers and providers. Those started to be less and less visited since travelers started to prefer Online Travel Agencies as well as travel platforms based on the sharing economy model e.g. Airbnb.

4.1.2 Traditional tourism and online marketing

Online marketing is born thanks to the Internet, which is used both as medium and technological tool to improve marketing strategies (cf. Dann and Dann 2011, p. 26). Combining traditional forms of tourism and online marketing one can imagine a very common and current match used to promote tourism through digital marketing. In general, online marketing is a very important instrument used to increase brand awareness through several tools such as email marketing, blogging, social media, online banner advertisement (cf. Schulz 2015, pp. 82–92). It can be argued that this combination is the most used at present. In fact, taking into account that more than 80% potential tourists in Europe make use of Internet to plan their trips (cf. Schulz 2015, p. 66), as well as the fact that a little percentage books a sustainable trip, it can be seen how this form is the most employed one. On the one side, this means that the Internet offers great potential in the touristic sector due to the very nature of tourism. As a matter of fact, considering tourism as a service, i.e. an intangible product, it is meaningful to state that it is ideally suited to electronic data transmission (cf. Amersdorffer et al. 2010, cited in Schulz 2015, p. 108).

On the other side, since the Internet accompanies the user from the research phase to the postexperience phase, this tool can be used to improve the different steps and for service providers to be more attractive to travelers. In the touristic marketing, breaking down the decision process and describing its different phases over time is called Customer Journey (cf. Schulz 2015, p. 109 and Figure 3). The division in steps is useful because the user's buying process can be studied in detail and used to improve marketing strategies in the different stages (cf. Horster 2013, p. 74).



Figure 3: Customer Journey (Schulz 2015, p. 118)

4.1.3 Sustainable tourism and classic marketing

The UNWTO characterizes ST as the one "that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities" (UNWTO 2019b).

By matching classic marketing and ST it can be argued that the message of sustainability has a contained impact. On the one hand, classical marketing seems to be effective: it builds trust, offers valid positive aspects such as the fact that posters, flyers, and traditional advertisement can be easily remembered (cf. Varbanova 2019). On the other hand, though, offline marketing has a limited reach and can be very costly.

The match of classical marketing and ST can bring on one side a good effect, since people who are reached may remember the impact longer and diffuse the message of sustainability. On the other side, this type of impact is rarely active worldwide. Imagine reading a flyer about sustainable tourism at a café, taking it home and discussing about it with your family and friends. The impact of word of mouth can be very strong if the message impresses the reader a

lot. The same could happen watching television and getting advertisement in the pauses between the programs. This activity is likely to happen in the small circle of people but can rarely reach the other side of the globe at the same moment. Figure 4 shows how both word of mouth and conventional advertising are far less used worldwide than the Internet by the information research in the decision phase.

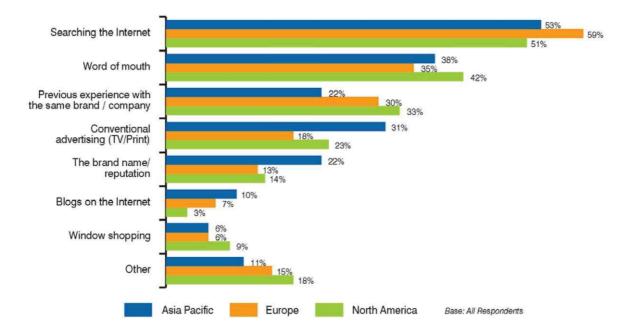


Figure 4: Travel information sources (Egger, p. 440)

Also, sustainable tourism is being discussed since three, four decades and has gained international attention and importance (cf. Balas and Strasdas 2019, pp. 16–18). However, sustainability issues are not always taken into consideration by tourists in their travel decisions. Statistics show how 57 per cent of German travelers are interested in sustainability: in fact, they stated that "their holidays should be as socially acceptable, resource-saving and/or environmentally friendly as possible" (cf. Statista 2020d). Moreover, statistics present that one of ten European tourist book eco-friendly and is ready to make lifestyle compromises for the environment (cf. TUI Group 2017). However, only for 4 per cent of German tourists sustainability was the decisive factor (Figure 5).

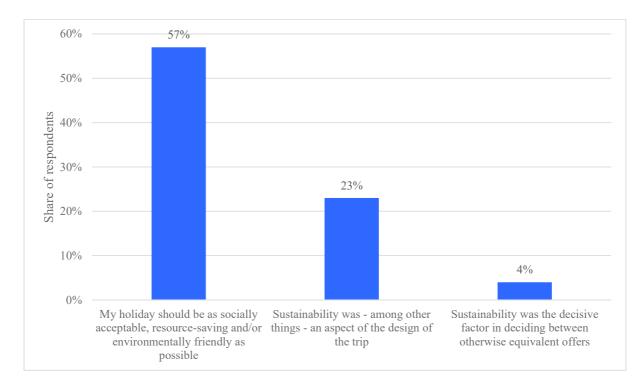


Figure 5: Role of sustainability in holiday planning in Germany (Statista 2020e)

4.1.4 Sustainable tourism and online marketing

The reachability issue belongs to the downsides of offline marketing. On the contrary, online marketing has the potential and the instruments of a global reach. Also, being measurable and more convenient, online marketing can offer several advantages to the advertisers. The present work argues that this last combination, sustainable tourism together with online marketing, is the most effective one in the matrix.

4.2 Sustainable tourism and online marketing: the innovative combination?

This part explains the reasons why sustainable tourism with online marketing represents the most innovative combination in the matrix. The analysis starts by breaking down the hypothesis in three parts and discussing the theory in three steps: firstly (a), the present situation related to the current technologies is described and linked to online marketing. Secondly (b), the importance of sustainability in the tourism sector is discussed and supported by statistics. Thirdly (c), the previous assumptions are combined to show how the connection between OM and ST can be innovative both in theory (4.3) and in practice (4.4).

(a) Online marketing is becoming more important and used thanks to the current technologies.

The use of digital marketing is increasing. Traditional advertising spending are decreasing while the spending for digital marketing are constant and higher than the traditional forms (Figure 6).

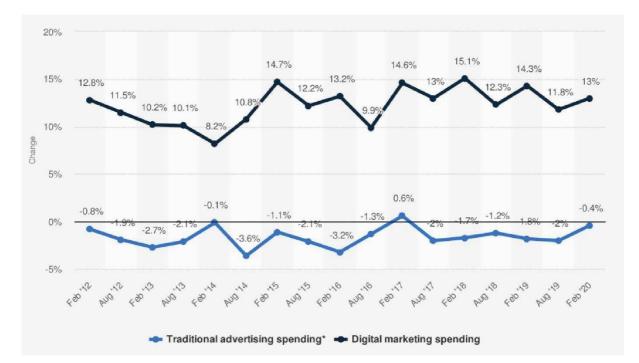


Figure 6: Change in digital marketing spending in the US from 2012 to 2020 (Statista 2020a)

The main idea behind the vast use of online marketing is that nowadays a great percentage of people worldwide are Internet users. Besides, since the infrastructure to support the technology is expanding, the number of Internet users is increasing: in 2019 it amounted to 4.13 billion, up from 3.92 billion in the previous year (cf. Statista 2020c). The current technology is not only represented by the Internet, but also by another tool which is generally becoming more and more important in business, i.e. Artificial Intelligence (see also 3.2). On the one hand, the Internet is an instrument in evolution and "e-marketing is the most volatile and rapidly developing sub-discipline in marketing" (cf. Dann and Dann 2011, p. 26). Therefore, the two fields can work together to improve their use of the technology. On the other hand, Artificial Intelligence can be used successfully in OM by providing applications which are data-based and intelligent. AI can be used to manage data, personalize content as well as target audiences, e.g. with the tool Smart Content Curation. This tool is responsible for identification, classification and suggestion based on past purchased products (cf. Theodoridis and Gkikas 2019, p. 1323). Hence, not only the Internet, but also AI can be considered significant

instruments to encourage the growth of the tourism sector as well as its long-term conversion to sustainable practices.

Statistics performed in the tourism domain show how travelers consider Internet to be a precious instrument which accompanies them from the planning to the reviews phase. For example, a German study shows how most tourists begin their travel planning on the Internet, how 55% of the population used the Internet at least once for their holiday organization and how the trend is rising (cf. FUR Forschungsgemeinschaft Urlaub und Reisen e.V. 2013, cited in Schulz 2015, p. 75). In Italy, 86% of tourists use Internet before traveling both to book and to look for information and the same percentage uses at least one application during the travel (cf. ItaliaOggi.it 2018).

With the condition that most people resort to the Internet and that a product or an idea needs to be marketed, it is consistent for the providers to use the same technology as their users since the probability to reach more future customers is very high. In this context it is also essential to mention how not only the creativity of the message is crucial to succeed, but also the fact that several digital marketing channels are available and can be used to target different categories (cf. Živković et al., p. 758).

Emails are the most used instrument by digital marketers since on one side most people check their emails very often (Figure 7).

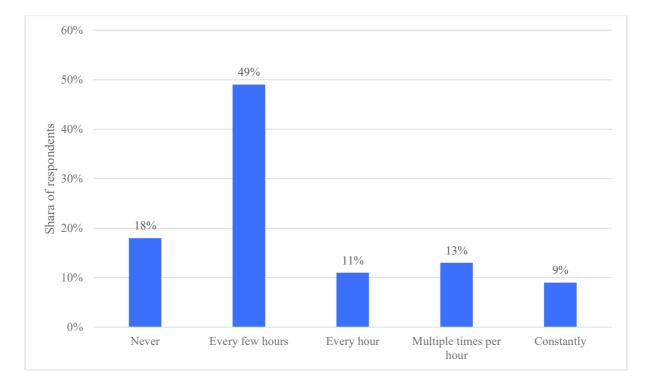
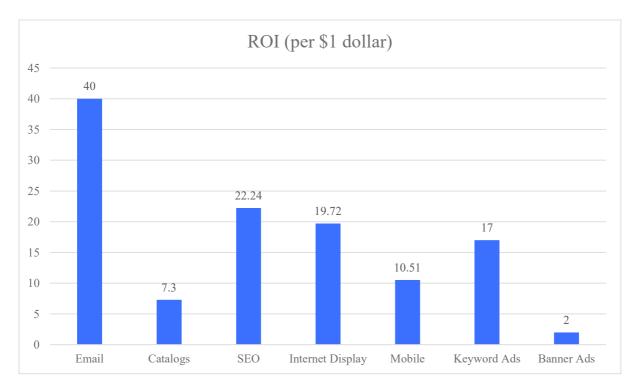


Figure 7: Email usage outside of normal business hours in the US (Statista 2020b)

On the other side, marketers can take advantage of emails to build a closer bond with the customer through several tools. An example is personalization, which belongs to online marketing communications instruments that generate the most revenues (cf. Krizanova et al. 2019, p. 5). Moreover, emails are the medium which grants the higher ROI compared to other marketing means (cf. Santora 2019 and Figure 8).





(b) The sustainability debate is increasing at international, national, and local level causing changes in the tourism sector.

The tourism industry has been influenced and transformed by the global trend of sustainability in the last twenty years. In particular, the Sustainable Development Goals (SDGs) of the Agenda 2030 influence this sector in three key points (cf. Martini and Buffa 2020, p. 1; Balas and Strasdas 2019, p. 20). First, the use of environmental resources needs to maintain ecological processes and biodiversity. Second, the socio-cultural authenticities of host communities must be respected in a way that their traditions and cultural heritage are conserved. Third, it is essential that touristic activities have a positive socio-economic influence on all parties involved, i.e. the stakeholders. This means that e.g. stable employment, income-earning opportunities as well as social services to host communities need to be beneficial for all the interested parties (cf. UNWTO/UNEP 2005, cited in Balas and Strasdas 2019, p. 20). Figure 9 shows how the three points need to be considered by the whole tourism sector, i.e. not only tourists but also each tourism service provider, need to take into account how to make the system more sustainable.



Figure 9: System of sustainability in tourism (Balas and Strasdas 2019, p. 31)

Hence, sustainability in tourism should contribute to the SDGs of the Agenda 2030 by involving all tourism stakeholders, strengthen the positive impacts of tourism by reducing the negative ones, formulate specific responsibilities for all levels (cf. Balas and Strasdas 2019, pp. 31–32).

(c) Sustainable tourism and online marketing can be considered an innovative combination on the theorical front (4.3) as well as on the practical one (4.4).

4.3 An innovative combination

The very nature of innovation is to implement a process or a product. By considering both sustainable tourism (ST) and online marketing (OM) innovations of their fields one can admit

that matching them represents an innovative combination. ST represents what one could call an upgrade to the traditional tourism because it considers the real consequences of travelling and touristic activities. Moreover, ST aims at reducing the impact on the environment as well as on the hosting communities trying to maintain a vision which includes a wider look at the future. On the other side, OM is a digital innovation supported by the Internet. This as well could be considered as an upgrade of the classical forms of marketing. OM offers a better customer reachability along with greater communication possibilities through the several available channels.

This section illustrates how the combination of ST and OM is innovative on a theoretical level. The concepts of sustainable tourism and online marketing have been defined in Chapter 2 and 3 and then compared thanks to a matrix (Figure 2). The main idea was to separate ST from traditional tourism as well as OM from classic marketing. So, it can be affirmed that a new version of their classical correspondents has been highlighted and identified as the most successful one. Therefore, the implementation or upgrade of the concepts represents in theory an innovation of traditional tourism on the one side and classic marketing on the other side.

It can be argued that matching ST and OM is innovative because this can raise awareness on sustainability issues by using digital marketing channels as the main technology. This reasoning can be explained thanks to the assumptions previously illustrated. If on a general level (a) online marketing is becoming a key tool to diffuse ideas, it can be also used to increase the interest on ST. Furthermore, the need for more sustainability is evident and visible (b) not only in the international debate but also in prescriptions – such as the Agenda 2030 with its SDGs – which aim at controlling the way touristic activities are organized and their impact on both environment and local contexts (see also 2.1, 2.2). So, from a theoretical point of view, ST and OM can offer a great innovative potential by being matched.

Going further, the premise that the sector of tourism cannot be separated from the environment helps to continue with the reasoning. To make the tourism industry more sustainable, it is necessary for the whole sector to embrace sustainable practices. It is therefore crucial to select a tool which has both great reach and potential in the transformation of the innovative combination in theory into practice. Marketing is the essential instrument to achieve this goal, or in this case digital marketing (cf. Cristobal-Fransi et al. 2020, p. 1).

4.4 Digital marketing as the practical tool for sustainable tourism

The previous part showed how the combination of ST and OM is innovative on the theoretical level. However, how can be the match effective and innovative in practice? This section wants to demonstrate that digital marketing is the instrument to make the tourism sector more responsible, i.e. trying to upgrade it on a larger scale to become more sustainable. Online marketing is the key on the practical level because of several reasons, which are going to be discussed.

The first argument is that the technology allows it and thanks to its continuous development digital marketing can be adapted easily. Also, online marketing uses tools in progress such as AI to improve the reachability and the connection to the customers.

The second reason why digital marketing is the key in practice is also linked to technology as well as to the increasing use of the Internet both on the side of the customers, i.e. the tourists, and on the side of the providers, i.e. the various actors who offer their services in tourism. For the former it is getting easier and easier to get information, prices, quality reviews on the Internet as well as to gain a very relevant position thanks to the great possibility to make comparisons and choose the best offer at the best time. Since the negotiating power of consumers is growing, those are also likely to be defined by the term prosumers (cf. Schulz 2015, p. 69). This word underlines the fact that people have a great deal of power because they can influence the market. This is why it is crucial to take this fact into consideration also in the business and marketing context (cf. Gunelius 2010). For the latter, i.e. the providers, it is possible to get more ROI through the Internet, e.g. as previously examined, by using instrument of communication and diffusion such as email marketing. If the consumers become prosumers, at the same time service providers also have more bargaining strength. In fact, they can spread and upload their offers through different channels, e.g. websites, social media, search engines and other kinds of instruments. In this way they can save provisions money, once used to pay intermediators such as travel agencies, tour operators and tourism associations, and invest it in other activities (cf. Schulz 2015, pp. 69–70).

The third reason why e-marketing can be the central tool for sustainability in tourism is linked to the destinations policy. If a destination and ambitiously the whole tourism sector wants to be more sustainable it is not only because the international guidance imposes to do so but also because tourists still visit some place – even though they adopt different behavior, as providers do . However, the sustainability message still needs to be spread so that visitors can invest their

money in the locations as well as on the various services. This can be further invested e.g. in local improvement, digital marketing, etc.

5. Can the success of the combination be measured?

The previous chapter illustrated how ST and OM form an innovative combination in theory as well as in practice. This part aims both at refine the search in the practical part and answering the question whether it is possible to measure the success of the combination by supporting it with data, statistics and examples drawn from fields' experts. A quantitative (5.1) and a qualitative (5.2) approach are illustrated to prove the hypothesis.

5.1 Quantitative approach

Measuring the success of such a combination is challenging. The main issues concern on the one hand the fact that there is very little research on this match. In addition, the amount of data to compare for a detailed quantitative research is not always available in the domains of ST and OM, which are in addition difficult to measure even taken separately. Surely, assuming the combination is innovative is not enough to prove that it can work on a practical base. Therefore, it would be necessary to find measurement methods which can show that ST combined with OM can be an asset. In particular, the economic side as well as the environmental one is going to be highlighted in this part. Section 2.4 illustrated the issues linked to measuring sustainability and how it is useful to keep a holistic approach in mind rather than to focus on indicators which cannot always correspond to the reality. However, it is important to start with such indicators to be able to compare different situations. Also, since this contribution remains rather speculative because of the issues cited above, it is essential to start with the reasons why sustainability is a fundamental tool, which allows to have more economic power and environmental benefits.

It can be argued that sustainability is essential to raise competitiveness. It is now useful to analyze the statement in different parts as well as link it to the specific case of the combination of ST and OM. First, (a) the assertion is discussed and supported by statistics presented by the Travel & Tourism Competitiveness Report. Second, (b) the role of tourism as essential contributor to the global economy is illustrated and explored in relation to the sustainability issues. Third, (c) statistics and data which can support the hypothesis that ST as well as OM can provide more revenue are illustrated and discussed.

(a) Why does sustainability raise competitiveness?

The sector of travel and tourism is a relevant driver of economic growth which contributes to over 10 per cent to the global GDP next to accounting for one out of ten jobs on the planet.

Given the importance of the sector, the World Economic Forum provides a measurement method which illustrates and compares different economies in terms of competitiveness, i.e. the TTCI or Travel & Tourism Competitiveness Index (cf. Crotti and Misrahi 2017, p. xi). To construct the index, ninety indicators are combined to form fourteen pillars which are summed up into four sub-indexes: the enabling environment and sector related policies or enabling conditions, infrastructure, natural and cultural resources (cf. Crotti and Misrahi 2017, p. xiii and Figure 10).



Figure 10: The TTCI framework (Crotti and Misrahi 2017, p. xiv)

The index is relevant to the present research because it measures the factors responsible for the sustainable development of the industry. Also, as a benchmarking tool for 136 economies published biennially, it enables to compare countries or regions across the globe and observe how sustainability issues are being handled. In the travel and tourism sector sustainability has a great deal of importance since this industry can be a major contributor to a country's competitiveness. This can be supported by the statistics on ST in Chapter 4: if in general sustainability is gaining in significance among tourists, this indicates that a visitor would rather be more attracted to a ST alternative rather than a non-sustainable one. So, the tendency increasing, being sustainable means that service providers have the possibility to attract more clients as well as that visitors can contribute to local revenues. Hence, for both parties involved, investing in ST reveals as a great action which increases competitiveness. Therefore, the more a country invests in sustainable practices, the more it can be attractive for tourists to visit it. So, sustainability improves the competitiveness of a country. The next paragraph supports the statement with statistics and data.

By comparing international tourism receipts (Figure 11) with the competitiveness ranking by the World Economic Forum (Figure 12), a correlation appears between the success of a country in attracting international tourists and its competitiveness ranking. It can be affirmed that the more competitive a country is the more it is capable of being appealing at international level. To help visualizing the correlation, the map in Figure 11 shows in dark blue the first eight ranking countries of Figure 12, i.e. the most competitive states worldwide in the travel and tourism industry. Hence, those are the most powerful countries capable of attracting a lot of international tourists – who spend most money, making a great contribution to their travel and tourism industry. Even though Switzerland and Canada appear in the TTCI top ten ranking countries – the former ranks first in environmental sustainability and the latter in air transport infrastructure – as well as in the top twenty-five for international tourism (cf. The World Bank 2020b), their receipts from international sources are, compared to those of the other eight countries, below average. The other most competitive countries appear in descending order by amount of receipts as follows: United States, Spain, France, Germany, Italy, United Kingdom, Australia, and Japan.

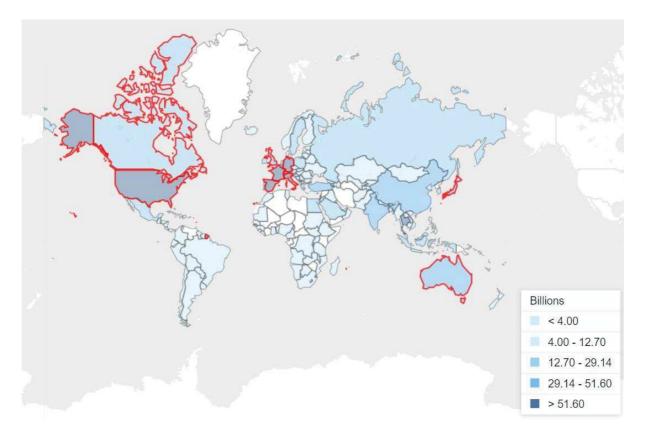


Figure 11: International tourism in 2018, receipts in US\$; selection of the top 10 competitive countries (The World Bank 2020a)

Rank 2017	Economy	Rank 2019	Economy
1	Spain	1	Spain
2	France	2	France
3	Germany	3	Germany
4	Japan	4	Japan
5	United Kingdom	5	United States
6	United States	6	United Kingdom
7	Australia	7	Australia
8	Italy	8	Italy
9	Canada	9	Canada
10	Switzerland	10	Switzerland

Figure 12: Tourism and Travel Competitiveness Index, Overall Ranking in 2017 and 2019 (The World Economic Forum)

(b) Tourism as key contributor to the economy

If the tourism sector is responsible for such a large cut of the global GDP, it is important to support the transformation to a more sustainable sector. In fact, this is an essential factor for its survival as industry as well as critical to keep the pace with the growing importance of environmental issues and global sustainable trends. Sustainable tourism means not only more attractiveness for the locations and tourists, but also economic assets for the local communities.

For example, it is important to increase sustainability in areas characterized by mass tourism. Alternative models can be proposed to attenuate the concentrated tourists flow, e.g. promoting off-season tourism to balance the number of visitors in high season. However, this measure cannot be always used since some areas are only accessible when the season's weather or natural conditions are favorable. Also, other kinds of tourism can be made more attractive to contrast the tendency of overcrowding, i.e. cultural, health, and sport tourism. Moreover, it lies in the visitor's responsibility to design the trip which considers such factors by selecting the right time to travel and try to avoid overcrowding in very touristic areas.

Another reason why it is essential to make the sector more sustainable is linked to the environmental richness of touristic locations. Since the tourism sector is closely linked to the environment which is going to be visited, may it be of natural, e.g. landscapes or specific configuration, or cultural origin, e.g. monuments of protected areas sites, it is important to guard it and be responsible for a conscious use of the resources. The attention to the environment started to be more important to tourists in the nineties (see also 2.2): protection

and conservation of a site began to mean also added value to a product – tourists also prefer clean beaches and water as well as pristine nature (cf. Rein and Strasdas 2017, p. 35). Preservation is not only essential from the environmental point of view, but also from an economic one. It is a fact that the environmental strength of a country is directly related to tourism revenues: a well preserved and uncontaminated region offers more possibilities to be reached by visitors who are willing to pay to access them (cf. Crotti and Misrahi 2017, p. 6 and Figure 13).

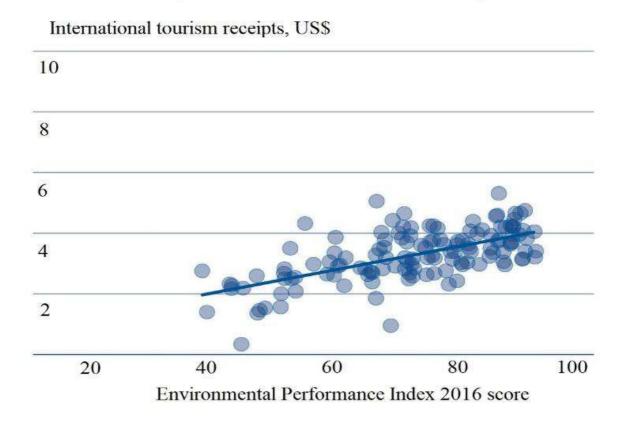


Figure 13: Correlation between environmental performance and tourism receipts (Crotti and Misrahi 2017, p. 6)

(c) Sustainable tourism and digital marketing can provide more revenue

Sustainability can enhance the level of competitiveness in the travel and tourism sector, which contributes in turn to a large part of the world's economy. Going further in exploring the reasoning, it is useful to widen the terminological approach of ST. Until now the importance of sustainability in this specific industry has been highlighted. However, the segment of tourism which can be characterized as sustainable is still modest compared to the whole sector which includes less sustainable domains, e.g. the aviation industry. Therefore, it is useful to speak about sustainability in tourism rather than restricting the area to one kind of tourism. This way more of the industry can be considered and the impact of sustainable practices also measured

in a wider way. Another advantage of broadening the terminology is linked to the fact that, the sector being cross-cutting, a more open-minded approach to the industry as well as to the concept of sustainability can take place (cf. Balas and Strasdas 2019, p. 30; see also 2.3).

The hypothesis that sustainability in tourism combined with digital marketing can provide more economic benefits as well as improve the environmental attention or impact is now illustrated and discussed. It is essential to start from the fact that being sustainable is an asset which makes a difference in the long run. This means that investing in it gives economic returns as well as protection of natural resources and more generally of the local environment. However, how can the success of sustainable policies and practices be measured? The previously cited Travel & Tourism Competitiveness Index, TTCI, is in this case useful because it shows a wide approach by considering several factors which define a country as competitive. Since the report by the World Economic Forum in 2017 focused on highlighting how the travel and tourism sector is making efforts toward a more sustainable approach, the TTCI reveals strengths and weaknesses of countries as well as ranks them in the different sub-indexes. In the overall ranking, Spain is the country with most success not only thanks to its natural and cultural resources, but also due to tourism service infrastructure and strong policy support (cf. Crotti and Misrahi 2017, p. 306).

Thanks to the TTCI Report of 2017 detailed data and indicators can serve as a tool to compare the most effective countries in marketing with the most sustainable ones in the domain of travel and tourism. In Figure 14 two indicators are considered, i.e. effectiveness of marketing and sustainability of travel and tourism industry development. The former belongs to the pillar "Prioritization of T&T" and the latter to "Environmental Sustainability"; both fall into the subindex "T&T Policy and Enabling Conditions". Figure 14 shows in dark blue the twenty countries which have the best scoring in being effective in marketing (see also Table 1 in the Annex). To see if the ranking in marketing matches a good ranking in the industry's sustainability, a comparison with the second indicator is drawn. The match appears when the points in light blue are close to the center, i.e. for the United Arab Emirates, New Zealand, Singapore, Rwanda, and Malaysia. Those countries have the top ten best scoring in both indicators, which indicates that marketing and sustainable tourism can be considered both responsible for attracting a lot of visitors and for the development of the tourism and travel industry as sustainable.

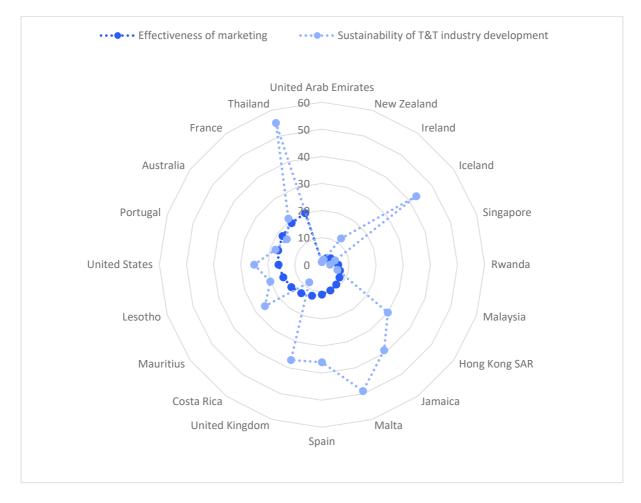


Figure 14: Comparison between effectiveness of marketing and sustainability (The World Economic Forum 2017)

Figure 14 offers a glimpse of the most successful countries both in managing the marketing tool to attract tourists as well as in terms of sustainability. It does not come at surprise how some of the most competitive countries (see Annex, Table 1 for the complete data) such as Spain, France, United Kingdom, United States and Australia, are less effective in terms of marketing, since they dispose of great natural and cultural heritage which is worldwide recognized and established. Hence, it can be supposed that this tool is generally less needed. What does surprise though, is how those same countries are less advanced in terms of sustainability in the travel and tourism domain or more in general of environmental sustainability.

Even though it is challenging to measure the impact of digital marketing in tourism, it can be argued that digitalization as general trend is gaining importance and affecting the sector. The World Economic Forum report describes how digitalization can add value and transform the sector by bringing more profitability along with reducing the environmental impact:

Over the next decade (2016 to 2025), digitalization in aviation, travel and tourism is expected to create up to \$305 billion of value for the industry through increased profitability, migrate

\$100 billion of value from traditional players to new competitors, and generate benefits valued at \$700 billion for customers and the wider society through reduced environmental footprint, improved safety and security, and cost and time savings for consumers (Crotti and Misrahi 2017, p. 24).

It is a fact that the way of travelling and be a tourist has completely changed compared to previous decades. The customer or visitor uses technology a lot and is connected most of the time – or uses applications along with the Internet during the travel. In this context where the digital is so central to business and personalization desires are higher than in the past, online marketing is a key player in the sector (cf. Crotti and Misrahi 2017, p. 24). Also, as previously seen (Chapter 4), digital marketing is cost saving, has a great deal of reachability, and can be used through several channels depending on targeted public or the degree of personalization.

So, going back to the statement that sustainability raises competitiveness, it is equally important to mention that to remain competitive a digital strategy is necessary. This goes hand in hand with the digitalization increasing its importance inside and outside the travel and tourism sector (see also 3.4). Hence, to stay competitive, it is essential to improve the digital reach and make use of digital marketing. On the one hand, sustainable practices can generate more revenue than non-sustainable ones, which is why the resulting money can be reinvested in the environment. On the other hand, digital marketing acts as a key tool of the general digitalization trend which can also bring more profit. Both elements can therefore be a significant contribution, the former from an environmental point of view and the latter from an economic one – digital means optimizing marketing and having more funds for other investments e.g. the ones on local communities. Combining the profits from sustainable activities with those from digital marketing is hence an asset.

5.2 Qualitative approach

From a qualitative point of view, it is interesting to look at a set of interviews to this sector's experts focused on how to measure ST success. Even though the concept of success is not easily definable, in the context of sustainability it can be said that success indicates less exploitation and negative impact and more benefits to the local environment. The experts described with several approaches how sustainability in tourism can be successful (cf. Sustainability Leaders Project 2019a). Although the sustainability leaders are active in different tourism domains, they exposed similar views and agreed on specific matters, which are briefly discussed in the following list.

- a. Sustainability is a journey: the concept being in evolution, its success is rather a process than an outcome. Therefore, it is difficult to measure how a process is evolving and its essential to consider e.g. intervals of time as an indicator.
- b. Community well-being should be central since the whole sustainability idea is closely linked to whether touristic activities can be beneficial for the community. If in turn the community is committed to sustainability, it will be easier for visitors to engage in maintaining certain standards. Gavin Bate, mountaineer founder of a travel company and the charity Moving Mountains, underlines how it is unlikely that theoretical solutions will be adopted without the support of local communities, who could be unfamiliar with the concept or the academic version of sustainability (cf. Sustainability Leaders Project 2019b).
- c. Holistic approaches to sustainability can be considered as an alternative to more empirical ones. This means that not only the economic side should be a measure of success, but it is equally important to consider a set of factors such as the environmental impact, the socio-cultural benefits to the local communities, gender equality in jobs, resident happiness, etc. This kind of approach shows how challenging it is to measure sustainability and its success. Moreover, sustainable issues along with the travel and tourism industry are complex systems, that is why a more holistic approach would suit the challenge of measurement.
- d. Collaboration and partnership among the different sectors of tourism, e.g. transportation, food and beverage and accommodations, are central tools for sustainable development. In fact, if the way the actors function together is effective, it is more likely for the destination to be successful in terms of sustainability.
- e. Metrics or global standards to compare to should be considered to identify progress in sustainability as well as to measure success. Even though general and international standards are essential, it is equally necessary to implement and adapt the criteria on a local level, depending on the destination. According to Ronald Sanabria, this last point is crucial since every destination has different issues to deal with, therefore adapting to the local reality is the right strategy (cf. Sustainability Leaders Project 2019b).

To sum up, a successful sustainable tourism experience can be observed from several points of view or approaches. For example, the concept of sustainability should be considered as a process which can be measured by international guidelines. Those need to be adapted to the local reality since every destination is a microcosm. Finally, to have a positive impact on sustainability, it is equally important that the actors involved as well as the community are on the same page.

6. The Swiss example

The previous chapter dealt with the measurability of sustainable tourism and online marketing. Although one solution to the problematic cannot be presented, it has been shown how sustainability grants the possibility of a higher level of competitiveness. Also, the digitalization trend, which is occurring in all types of business, is becoming more relevant in tourism as well: in this context, digital marketing is a crucial tool to master the tendency. Thus, it can be argued that by combining both instruments, sustainability in tourism in parallel with digital marketing, the tourism and travel industry is bound to be more competitive and efficient in terms of digitalization.

Since Chapter 5 offers a general context for the measurement and success of the combination, it is useful to continue exploring the topic on a more circumscribed area. It is interesting to take Switzerland as example for three main reasons. First, (6.1) given that the Alps present a tradition in climate protection and sustainability (cf. Rein and Strasdas 2017, p. 87), it is relevant to look at Switzerland as the Alps cover two thirds of the country's territory and sustainable tourism has a strong role in the country. Second, (6.2) this country occupies since years the first position in environmental sustainability according to the World Economic Forum. Third, (6.3) several interviews of field's experts are available tourism in Switzerland and a glimpse on several different projects. The approach in this chapter is descriptive as well as qualitative, based on the interviews.

6.1 The excellence in mountain tourism

Taking an example in mountain tourism is interesting for several reasons. In those areas, the effects of climate change are more visible: the melting of mountain glaciers, the classic fourseasons distribution, the more variable weather conditions which influence even more the articulation of the already altering seasons, represent some very discussed topics. If the presence of a natural course determining quite regular seasons has always been a central factor for mountain tourism activity, climate change enhances its importance even further. The ski industry can be named as an example: the necessity of natural or also artificial snow characterizes this domain and is vital for its existence, which classifies it as a sector at risk. In fact, not only winter season shortens year by year, but also snow falling has diminished – meaning snow is produced artificially at great energy and resources costs (cf. Kluger 2017). In this context, this industry may not survive long if innovations to optimize snow production are not introduced (cf. Parkin 2019). Several businesses linked to the ski industry are already trying to diversify more, e.g. by offering a broader spectrum of activities such as hiking or mountain bike-riding. However, even though the number of tourists visiting the Alps during the summer season is increasing, those activities are far less profitable than the ski business (cf. Parkin 2019). As for the meteorological observation, it is common knowledge that sunny or mildly cloudy days bring more visitors than rainy days, especially since mountain tourism is closely linked to outdoor activities requiring good atmospheric conditions. It can be therefore affirmed that climate change and its consequences are strongly felt and visible in mountainous areas.

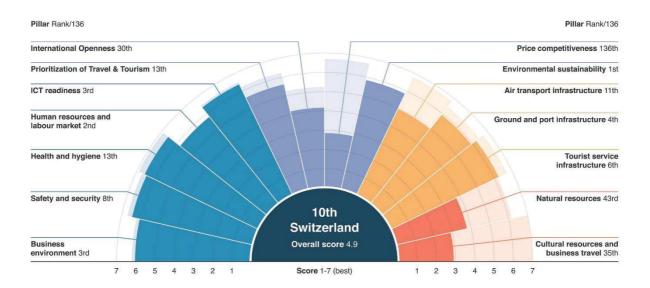
The factor of seasonality affects mountain tourism also from an economic point of view. On the one hand, touristic peak occurs in a limited timeframe, i.e. in winter from December to February and in summer from July to August or September, depending on the location. On the other hand, this means that, since most people have their holiday in that time as well as weather conditions seem to be more favorable, the touristic flow is very concentrated and high. Hence, a great part of the whole revenues of the sector are collected in the peak, which corresponds to an intense effort for the destinations in terms of both natural and human resources.

It can be affirmed that all the environmental, natural, and economic factors present a challenging mix which must be faced by mountain tourism. Therefore, a sustainable approach is extremely important in such territories. In this context, Switzerland is the perfect example of mountain tourism because of its stunning natural environment which grants a wide activity offer, its sustainable approach, and its mobility concept. To give a general first idea of this country, two examples are illustrated. First, to face the problem of emissions in the Swiss Alps, car free destinations were developed in collaboration with other European destinations: the Alpine Pearls is an initiative which consists of a network of sustainable destination supporting since 2006 green, car free travel in the Alps (cf. Rein and Strasdas 2017, p. 87). Second, an excellent public transport infrastructure grants sustainable mobility as well. The Rhaetian Railway in Eastern Switzerland is the perfect example of sustainable transport which has at the same time a symbolic value thanks to the UNESCO World Heritage label.

6.2 The first ranking country in environmental sustainability

It is again useful to refer to the World Economic Forum TTCI reports, since they offer a good performance overview and allow a comparison of a single country's progress over the years as well as with other economies or regions. Due to the excellent positioning in both the general and the environmental rankings, Switzerland is the ideal country to look at.

From the appearance of the Travel & Tourism Competitiveness Report in 2007 to the 2013 edition, Switzerland was the most competitive country in the world. In the following report published in 2015, Spain replaced Switzerland and still holds on the first position (cf. World Economic Forum 2020). In 2017, the country attained the tenth position in the general ranking, dropping four places from 2015. This change was due to a poorer performance on its natural resources pillar as well as cultural resources. A decline in protected areas and natural tourism digital demand could be related to the diminished effectiveness of marketing to attract tourists. Also, a major factor which influence the country dropping places in the competitiveness report is represented by the price competitiveness of the country which remains a very expensive destination and scores therefore as the least competitive on the globe in that aspect (cf. Crotti and Misrahi 2017, p. 312 and Figure 15).





As regards the specific domain of environmental sustainability, which is a pillar in the Travel & Tourism Competitiveness Index, Switzerland was the second ranking country from 2009 to 2015. Since 2015 the country maintains the first place (cf. World Economic Forum 2020). It is interesting to look briefly at the indicators which compose the pillar environmental sustainability to have an overview of the factors included. The pillar can be divided into three categories: regulations, sustainability, and use of natural resources. The first includes both stringency and enforcement of environmental regulations, i.e. how rigorously those are applied and respected in the country. In addition, the number of international treaties of which a country belongs to is also part of the pillar and can fall under the regulation's category. The second aspect regards the effectiveness of government efforts to ensure that the sector is developing

in a sustainable way. The third category concerns natural resources: the population exposure to particulate matter, water stress level, wastewater treatment, threatened species, forest cover change, and coastal shelf fishing pressure.

6.3 Sustainability champions in Switzerland

The Sustainability Leaders Project website (see also 5.2) gives an impression of sustainable projects around the world and locates them on a map. In Switzerland, thirteen ST champions are present, nine of which in the Swiss Alps (Figure 16). Two initiatives, Anakolodge (5) and Montagne Alternative (6) are in the French speaking area; one, 100% Valposchiavo (13), is the only project of the Italian speaking region; the remaining ones are all situated in the area with German as main official language.

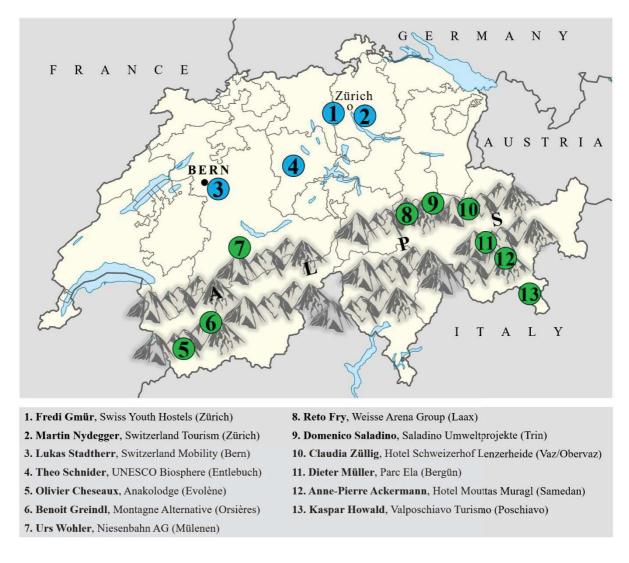


Figure 16: Swiss sustainability projects (Sustainable Tourism Leaders & Changemakers | Sustainability Leaders Project 2020)

Even though every initiative belongs to the domain of ST, there are different categories into which they fall into. First, it is interesting to look at the common aspects of the projects to

present a general idea or overview of how sustainability and the related issues are handled. Then, a more detailed approach to the interviews allows to describe the specifics of some chosen initiatives.

The Swiss projects can be divided in several areas of tourism sustainability, i.e. mobility, hospitality or hotel management, tourism marketing, construction, energy management and sustainable destination management. Even though those domains may seem at first disconnected and exist separately, thanks to a closer look at the general context and at the interviews, one gets another impression. In fact, not only those areas are closely linked together, but they also need each other to allow a functioning cooperation of different actors. For example, the experts seek collaboration not only with external partners, but also among them to make their projects more effective. Although the initiatives are scattered on the Swiss territory, their founders have similar opinion on several matters which they derived from their experience on the field putting into practice sustainable tourism. The following list gives a glimpse of the most relevant ones.

- a. The concept of sustainability was at first perceived as an ecological issue which needed to be solved as such by influencing the environment. The more the experts went on with their experiences the more they saw their idea of sustainability changing and involving also the economic and social dimensions.
- b. It is essential to consider sustainability as a process (see also 5.2). Most of the interviewed underline how it is crucial to have a long-term approach in sustainability matters. Not only the implementation of a sustainable tourism project needs a long time and may not be profitable from the beginning, but also the improvement and updating belong to the process. In fact, new technologies and innovations can improve the use of the resources or offer even more sustainable opportunities which must be considered and inserted constantly.
- c. All the experts support sustainability as a necessary factor for competitiveness. In the case of Switzerland, the main touristic resource is represented by nature. Hence, it is in everyone's best interest to protect it and preserve it to maintain this touristic asset.
- d. Marketing can play a key role from different points of view. First, classic imagery such as Heidi or the focus on natural phenomena like snow can be used also to attract new markets. Second, the link to local tourism providers is crucial to be successful in tourism marketing. Third, labels such as nature park or UNESCO are of great help in advertising an area. However, they also require commitment to the destination and

should not only be a hole label to attract visitors without ensuring that all the measures are also put into practice and respected.

e. Collaboration is a key factor to realize sustainable tourism projects. In fact, it is of great importance to seek the involvement of different players who are involved in similar projects. Some of the experts described how it can be difficult to find suitable partners, but they kept looking for open-minded people with similar ideas. The involvement creates a network which can be beneficial to the destination and create both a great image and relevant profits. Also, the collaboration with the local people must be ensured by such projects, since sustainability is an attitude which works when it is felt as responsibility as well as commitment to the following generations. Moreover, local businesses such as farms can be suppliers for other businesses and ensure a more local experience.

After giving a general overview, it is relevant to explore the initiatives in more detail. Since Switzerland is a multicultural and multilingual country, it is insightful to describe in detail at least one project from the French, German, and Italian speaking areas. Even though not every project and related interview is discussed, every domain is taken into consideration and at least one initiative is examined. Most of the projects are in the Swiss Alps (i.e. the green points in Figure 16), but for completion, it is appropriate to illustrate some initiatives which take place either in the subalpine zone, i.e. the UNESCO Biosphere in Entlebuch (6.3.1) or in a town, i.e. Sustainability Tourism in Zürich (6.3.2).

6.3.1 Entlebuch

A very interesting project is the protected Biosphere Entlebuch, a mountain destination near Lucerne. In fact, it not only combines all the relevant aspects hinted above, but it is also an example of how the combination of ST and OM can add value to a location.

Theo Schnider, director of the Biosphere, recalls the future of Entlebuch at the end of the eighties: "the touristic development of the region was, in view of the now protected areas, without prospects. All we could do was to try to turn the perceived handicap into advantages and benefits" (Schnider 2018). After an intensive development phase where the natural resources were highlighted and awareness among the residents was created, Entlebuch became a UNESCO Biosphere Destination in 2000. Additionally, this destination is the first biosphere reserve worldwide which was elected as protected area thanks to a democratic process and a popular referendum with ninety-four per cent of the population in favor.

As concerns the marketing domain it is relevant to look at one specific campaign including a short humorous and creative video. The film had a great success, which can be confirmed both by the fact that it was shown at the Cannes Film Festival and that the idea was promoted to about eighty million people throughout Europe. In a two minutes video, Entlebuch is described by its residents as a small idyllic place rich of local traditions, such as yodeling, alphorn music, and regional food. Although those elements appear quite common for a marketing campaign, the particularity is that the video is broadcasted to space so that not only terrestrial tourists but also aliens can visit Entlebuch, which is presented as "the first extraterrestrial tourism project in the universe" (UNESCO Biosphere Entlebuch 2014). Referring to this advertising, Theo Schnider underlines how being creative and humorous is essential for such marketing campaigns. As a matter of fact, with their originality such promotions are surely capable of passing the message of sustainability without losing touch with the residents and with the fun of doing something positive for the destination. The achievements in sustainability are described by Mr. Schnider as follows:

Today we are recognised by UNESCO as a model region for sustainable living, responsible business and nature protection. Countless biosphere reserves and governments from all over the world are visiting us to learn from our approach and to profit from our achievements. Entlebuch has become a brand (Schnider 2018).

Hence, the Entlebuch example shows how a location can commit to sustainability and be able to start successful marketing campaigns aiming at spreading the message of ST in an original way.

6.3.2 Switzerland Tourism

Remaining in the marketing domain, it is now relevant to look at Switzerland Tourism, a corporation under public law located in Zürich. Along with the previous example this initiative also links the domain of ST and marketing. On the one side, nature plays a key a role and, as the main touristic resource, needs to be preserved. Martin Nydegger, CEO of Switzerland Tourism, affirms how guests with their interest in nature are the main driver for sustainability: "nature, mountains, landscapes and waters have always been the reason number one to travel to Switzerland. For the over 100 years of existence of Swiss tourism marketing, and still today, as our market research confirms regularly" (Nydegger 2018). On the other side, marketing is central to diffuse the values of respect and protection of the environment. Mr. Nydegger affirms to the time include some traditional aspects in the planning of marketing campaigns to be more effective, i.e. use of the classic Swiss images such as Heidi, the snow, or the Alpine Horn to grant the focus on the unspoiled nature. Moreover, he underlines how it is essential to

have close links to the local tourism providers to be successful in tourism marketing. As a matter of fact, he emphasizes how sustainability enhances the competitiveness both for the local people and for guests since all players have an interest to remain on the protection path. Hence, Switzerland Tourism shows that good marketing use is meaningful to spread the brand of a country oriented towards nature which is aware of its resources and commits to their preservation as well as to their protection.

6.3.3 Sustainable hospitality

Other examples for innovative ST are linked to the hospitality sector, an important intermediary between the local economy and its guests. It is particularly interesting to look at the Swiss Youth Hostels, which was awarded with several prizes for sustainability. The CEO Fredi Gmür took over the association in 1996 and started restoring its financial stability. For this purpose, a three-pillar strategy based on the economic, social, and ecological dimensions was developed. For instance, the energy and greenhouse gas emission consumption have been significantly reduced since then and remain current objectives to increase sustainability:

The Swiss Youth Hostels constantly set new goals to prevent and reduce CO2 emissions and the consumption of energy in the production of heating, electricity and water. In 2017, we were able to reduce specific CO2 emissions for space heating by 57.3% in comparison with the year 2000. Thanks to the voluntary CO2 compensation scheme that we run, together with the climate foundation myclimate, with a very high participation of almost 60 % of hostel guests, we could offset around 2,270 tonnes of CO2 (Gmür 2018).

To offer a more complete image of the sustainability projects, it is also interesting to look at an initiative located in the Italian speaking Switzerland. The consultancy firm Saladino Umweltprojekte offers certifications and several audits in the accommodation business to improve sustainability e.g. to act again food waste. Domenico Saladino, CEO, and former director of Switzerland's first bio hotel affirms that it is important that a good organization of accommodation and destinations is required to fulfill ST. This can be achieved through constant investment as well as continuous training of the people involved: "for sustainability to work, everyone must perceive the results: employees and customers. In the first stages it is important to implement motivating measures, especially where the results can be measured and communicated easily" (Saladino 2019).

Another initiative in sustainable hospitality is the Muottas Muragl Romantik Hotel in the canton Graubünden directed by Anne-Pierre Ackermann. The hotel was recently renovated and transformed into an energy-efficient building which offers the best comfort operating only on renewable solar energy. In addition, to avoid food waste as well as involve the local economy,

the hotel supports regional farms buying local seasonal products. Anne-Pierre Ackermann underlines how a more sustainable tourism can be improved not only through remaining up to date with the best energy efficient technologies, but also with digitalization and communication.

6.3.4 Sustainable energy management

Remaining in the domain of process optimization to improve sustainability, two examples are illustrated, the former in the energy management domain and the latter in the building domain. As for the first one, an interesting case is offered by the "Greenstyle" approach described by Reto Fry, environmental manager at Weisse Arena Group in Laax, a small village in the canton Graubünden mostly famous as winter sports location. Laax major goal is becoming the world's first self-sufficient alpine destination through financially viable initiatives. Reto Fry's personal motivation gives a hint of the reasons which motivated him to pursue the project:

For me it was always a mission to reduce oil consumption as much as possible, and to find energy solutions which are based on renewable, infinite and more environmentally friendly resources. Secondly, I grew up in Flims/Laax, where most jobs (including mine) depend on the tourism sector. Our biggest capital is our unique landscape and nature. We make the mountains and lakes accessible and enjoyable for our guests. But we also need to find a way to protect them, to make sure tourism is sustainable (Fry 2018).

The Greenstyle concept was developed in 2010 focusing on different dimensions, i.e. energy, waste, water, food, transportation, biodiversity, and communication. This initiative shows how sustainability can be embedded in the strategy and be of great importance both for the location hosts and for the guests. In addition, reducing energy consumption is not only good for the environment but also for money saving – both very good reasons to improve sustainability according to Mr. Fry. In the case of Laax, the challenge of reducing the use of fuel was also influenced by the central role of winter sports, in particular of the ski industry, which are responsible for a great part of fuel consumption, e.g. in artificial snow production (see also 6.1).

The second example regards Anakolodge, an initiative in the French Swiss Alps in the domain of architecture and sustainable building with a strong focus on the social dimension. The manager Olivier Cheseaux shows how sustainability can be put into practice thanks to innovative architecture and design. In fact, his vision supports the rescuing of old buildings – considered as heritage of a location which helps remembering the ancestors – turning them into modern rustic mountain chalets. Anako, the name of an Indian shaman who inspired Cheseaux, stands for respect for a place which exists in perfect harmony with nature. In accordance with

this vision, every building he designs is unique and adapted to the location. Along with this modern architectural point of view, another innovative aspect is brought into the project. Anakolodge utilizes the platform Airbnb to promote less touristic, more remote places by advertising them around the globe (see also 3.4). This way the chalets can be open all year without being affected by off-peak seasons. Hence, this project confirm that the combination of ST and OM can be an asset, especially for more remote destinations.

Both the examples highlight how energy and efficient buildings play an important role in sustainability in tourism. In fact, seeking for renewable energy reduces not only the environmental impact but also the costs linked to non-renewable energy consumption. Additionally, recovering and renovating existing constructions shows an approach which gives old buildings new value.

6.3.5 Sustainable mobility

The domain of sustainable mobility plays an important role in sustainable tourism by supporting the use of green alternatives as well as the public transport system. For instance, the SwitzerlandMobility Foundation, i.e. the national network for non-motorized traffic, offers a lot of services collaborating both with the private and public sector. The initiative started in 1993 as a cycling organization which aimed at creating a network of cycle-tour routes in Switzerland (cf. Stiftung SchweizMobil 2009). In the following years, not only the routes were extended, but also other domains were involved, i.e. hiking, mountain biking, skating, and canoeing, creating the definition of non-motorized traffic. Those activities were then linked to the public transport system to promote sustainable mobility. Since 2008, when SwitzerlandMobility was launched by the Foundation, car free travel is possible thanks to national, regional, and local routes which are linked to service providers located on the path. Lukas Stadtherr, member of the foundation's executive board, illustrates in detail how the network functions:

All of SwitzerlandMobility's routes are linked to services provided by numerous partners. Specifically, these include public transport, vehicle hire, accommodation options and bookable offers with luggage transfer on the national routes and on some regional routes. Those routes and services are communicated through an extensive website of a quality that is unequalled anywhere in the world, together with ample information about attractions and a wide range of appealing and informative route guides (Stadtherr 2018).

Moreover, SwitzerlandMobility collaborates with several partners active in sustainable tourism in the country, i.e. Switzerland Tourism, tourism regions and the destinations. In addition, the foundation supports coordinated, high-impact marketing in the country to promote green mobility across Switzerland.

To sum up, the illustrated examples offer a closer impression of how sustainability issues in the tourism domain are performed. It can be argued that the Swiss initiatives are not only remarkable to look at for their commitment to sustainability, nature, and local culture, but also because they give proof that the hypothesis that sustainable tourism combined with online marketing is a real asset.

7. Conclusion

The present research aimed at discussing the question whether digital marketing forms are a successful tool in promoting more sustainable practices in tourism. In the first section of this chapter the results or main findings are illustrated by briefly reviewing the objectives. Given the importance of a critical observation on the research and results, the second section discusses both the limitations of the study as well as the possible improvements or recommendations for future research.

7.1 Results and key findings

To sum up the main findings, it is useful to first group them into the two main topics of the paper, i.e. sustainability and marketing. In a second place, the connection between the two elements is shown considering competitiveness as the linking factor.

In the case of sustainability, this work made it clearer that both the general and the specific domain of sustainable tourism must be considered as dynamic, complex, multi-facet matters. Having the characteristics of a process, they represent an approach to the whole tourism sector. In fact, to improve tourism, a vision which considers not only economic aspects, but also environmental and social ones, i.e. a *sustainable* interpretation is needed. It has been underlined how the interest and value of sustainability is confirmed and recognized at international level. For instance, among the several measures aiming at stating, diffusing, and promoting sustainability, the Agenda 2030 created by the United Nations contains seventeen Sustainable Development Goals which involve every domain, including tourism.

In the domain of marketing, it has been emphasized how the customer has gained its central role in the recent evolution. Moreover, recent technological developments such as the Internet, Artificial Intelligence, along with Big Data are a fundamental part of digital marketing evolution. It has been underlined how those elements can contribute not only to personalization, but also to the information or booking process or even to accompany the customer or traveler during the trip. So, especially online marketing as a very advantageous, inexpensive tool with a great reach can be used as a precious instrument for marketers. A technique which is becoming more and more relevant is storytelling, which can highlight the element of experience. This factor corresponds to the centrality of the customer – or traveler in the tourism industry – who wishes to be both a part of a story and experience a lot as a tourist or, better expressed, as a local.

Since this research's main objective was to study the combination of sustainable tourism and online marketing, some observations to conclude the section can be made. First, it has been highlighted how both can be considered as innovations of their domains – the former as an effort and approach to improve the whole industry and the latter as an upgrade of marketing which is up to date with technology possibilities and customer vision. As a combination – sustainable tourism can use digital marketing to increase the efforts towards sustainability they are even more innovative. Second, it has been shown how pristine, clean nature belongs to product quality in tourism - not only for visitors a sustainable version is more attractive, but also for service providers who can get good publicity and large profits. In addition, statistics sustain that environmental strength is closely related to tourism revenues. As a matter of fact, both the economic and the environmental dimension contribute to competitiveness in tourism. Hence, being sustainable is advantageous for the overall competitiveness of a country. Third, this factor can be also enhanced through digitalization. Disposing of the current technologies such as the Internet and Big Data along with being up to date in communicating and spreading messages contributes to a company's, an organization's, or a destination's competitiveness. Hence, it has been highlighted how digital marketing contributes to competitiveness as sustainability does. Both elements represent therefore an asset for being more sustainable in tourism with the help of the digital possibilities and reach.

7.2 Limitations, recommendations, perspectives

This section aims at looking with a critical eye at the work along with its result by underlining the main limitations of the study. Those serve both at showing what can be improved or extended and illustrating perspectives or recommendations for future research.

It cannot be denied that this work focused on the positive impact of online marketing on the tourism industry. This could constitute a reason to criticize it. Surely, it would be equally interesting to extend the scope of the research by examining the negative aspects as well. If the digital can positively influence tourism, it needs to be mentioned how the same instrument has the potential to transform a peaceful, green, and sustainable location in an uncontrolled, afflicted by mass tourism site. However, it needs to be highlighted how the negative impact of digital technologies or the over-sharing of information which leads to over-crowding cannot always be controlled. In fact, it could start with a group of people sharing pictures of stunning landscapes to create a phenomenon where everyone seeing it wants to experience it – and this can lead to uncontrolled tourism. Therefore, it is essential that the local communities react promptly to take advantage of the publicity situation by controlling the impact with regulations.

For instance, in the Dolomites, three examples are known for this situation which is not always managed properly. The Tre Cime, symbol of the Dolomites, the Lago di Braies and Lago di Sorapis are the most known, visited, photographed places of the area following both UNESCO certifications and the high sharing rates on social media – ten years of UNESCO certification increased visitors numbers of ten per cent in the Dolomites. Over-crowding and over-tourism are well-known phenomena by the local inhabitants – meaning, on the one hand, large profits, and over-crowding e.g. too many cars on the streets on the other hand. So, the urge to develop a more sustainable concept is central – and the digital may be of help.

Another subject closely linked both to marketing and sustainability which could be explored to illustrate the negative impact of marketing is greenwashing. This phenomenon, i.e. a company or an institution claims to use sustainable practices only for good publicity, exists and is worth to be discussed in more depth. In addition, another issue which could be explored is linked to sustainable tourism labels: do they always stand for sustainable practices? Does, for instance, the UNESCO certification mean that the tourism in the area is green? The examples cited above show the opposite and illustrate that, even though such label may improve the economic impact on certified sites, not always sustainability – from mobility to ecosystem protection – is equally improved.

Even though the negative aspects have not been included in this study, it is important to mention them as a point of reflection on the topic or also later researches. In fact, to have a complete vision of a topic, it is relevant to consider both negative and positive aspects. However, since the hypothesis wanted to demonstrate how digital marketing can work in favor of sustainable tourism, it was equally appropriate to focus exclusively on the positive aspects.

Another aspect which can be criticized is the limited range of analysis in terms of statistics to support the thesis. In fact, the data and statistics are very general. To solve the problem, the tool of the case study could be used to analyze in detail some area which were able to increase sustainability with the help of marketing. For instance, the sustainability projects in Switzerland could be discussed in more depth with personal interviews to the sustainability leaders – which grant more possibilities of specific questions despite the very detailed and helpful website. Or even, it would be interesting to look at other countries with mountain tourism examples to verify if sustainable approaches work or could work there as well.

The research is based more on definitions, experts' works and interviews than on data, numbers, and statistics. Hence, it cannot be denied that the work remains very theoretical and

speculative. However, it offers another angle or perspective on two current, relevant, domains which are both gaining a stronger place in the national and international landscape. As a matter of fact, environmental issues along with the necessity to make changes to tourism forms which exploit natural resources or improve sectors which pollute a lot e.g. aviation need to be remembered. Since the digital is more and more present, it can be used for this purpose too. Even though the data support may be lacking, this work shows how online marketing can be one tool to increase sustainability in tourism. Surely, other digital or non-digital instrument are not excluded from this task – online marketing though remains an inexpensive, interactive, effective tool with a potential global reach.

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9. Annex

Table 1: Top twenty effective countries in marketing. Comparison with the indicator of sustainability of the T&T industry and correspondent pillars (The World Economic Forum 2017)

Country	TTCI Ranking	Effectiveness of marketing	Prioritization of T&T	Sustainability of T&T industry development	Environmental sustainability
United					
Arab	29	1	31	1	40
Emirates					
New	16	2	11	2	19
Zealand	10	2	11	2	19
Ireland	23	3	17	12	25
Iceland	25	4	3	43	15
Singapore	13	5	2	5	51
Rwanda	97	6	89	3	18
Malaysia	17	7	55	6	123
Hong Kong SAR	11	8	9	30	53
Jamaica	69	9	6	39	121
Malta	36	10	1	49	76
Spain	1	11	5	36	31
United Kingdom	5	12	38	37	24
Costa Rica	38	13	24	8	32
Mauritius	55	14	4	26	50
Lesotho	128	15	60	20	22
United States	6	16	20	25	115
Portugal	14	17	14	18	47
Australia	7	18	32	16	38
France	2	19	27	21	17
Thailand	34	20	34	55	122

Statutory Declaration

I herewith formally declare that I have written the submitted dissertation independently. I did not use any outside support except for the quoted literature and other sources mentioned in the paper. I clearly marked and separately listed all of the literature and all of the other sources which I employed when producing this academic work, either literally or in content. I am aware that the violation of this regulation will lead to failure of the thesis.

Freiburg, 24 August 2020

Chione Refrigencesch

Chiara De Francesch